



DELORME

Earthmate® **PN-40/30 GPS**

User Manual



GPS for Serious Outdoor Adventures

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User Manuals, Getting Started Info, Tutorials

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Table of Contents

General Information	2
Getting Started	7
The Satellites Page	10
The Map Page	14
The Compass Page	23
The Trip Info Page.....	26
The Find Page.....	28
The Waypoints Page	32
The Geocaches Page.....	37
The Routes Page	45
The Tracks Page	50
The Sun/Moon Page.....	54
The Tide Page.....	56
The Hunt/Fish Page.....	58
The Device Setup Page	59
Additional Information	65
Info Fields Table.....	73
Index.....	77

Getting Started

This manual is for use with DeLorme Earthmate® PN-30 and PN-40 GPS devices; they are referred to as the "PN-Series GPS" unless otherwise noted.

How to Use this Manual

For more information about the buttons on the PN-Series GPS, see *Using the Buttons* on page 5.

When the manual instructs you to do something, use these actions on the device:

- ▶ To select an item on the screen, such as a field, check box, button, drop-down list, menu item, or search result—use the arrow keypad to move/scroll to the item to highlight it and press **ENTER**.
 - » To edit alphanumeric fields, use the on-screen keyboard. See *Using the Keyboard* on page 7.
 - » To edit numeric fields, use the up/down arrows on the arrow keypad to increase/decrease numbers and change other information. Use the left/right arrows to move the selection.
 - » To clear a selected check box, press **ENTER**.
- ▶ Once you make a selection or finish editing information, press **ENTER** to complete the action.
- ▶ To exit a page or screen, press **QUIT**.

- ▶ To complete a series of steps—an arrow (>) indicates the sequence. Note that the sequences do not include **ENTER** and **QUIT** button presses described above.

Installing the Batteries and SD Card

You can power your device with two AA batteries (NiMH, alkaline, or lithium) or a DeLorme rechargeable Lithium-ion (Li-ion) battery. A slot for an SD card is underneath the batteries inside the battery compartment.

To install batteries and the SD card

1. Unscrew the D-rings on the back of the device until you can remove the battery cover.
2. Optional. To insert an SD card, gently press down the SD card latch, insert the card in the slot, and press down the slot to close the latch. **Note:** Do not lift the SD card latch as this could cause damage.
3. Insert two AA batteries or a DeLorme Li-ion rechargeable battery according to the polarity symbols inside the battery compartment. Be sure to insert batteries correctly.
4. Position the battery cover on the device and screw in the D-rings.

5. Go to **MENU > Device Setup > System > Battery Type** and ensure the correct battery type is selected. This ensures that the battery indicator displays the correct amount of battery life remaining.

Note When storing the PN-Series GPS for a month or longer, remove the batteries.

To view the battery indicator

The battery indicator is on the Satellites Page; for more information, see *Battery Indicator* on page 12.

To charge a DeLorme Li-ion battery

To charge a DeLorme Li-ion battery in the device:


1. Install the battery in the device.
2. Connect the device to your computer with the USB cable. You can leave the device fully powered on.
OR
You can set it to charging mode; with the device powered off, quickly press **Power** once. The screen displays "Charging" or "Charge Complete."

To improve battery life

- ▶ Automatically turn off the backlight after 15 seconds; go to **MENU > Device Setup > Display > Backlight Timer > 15 sec.**
- ▶ Use the power saving option; go to **MENU > Device Setup > System > GPS Settings > Power Saving.**

- ▶ Disable the GPS when inside. Go to **MENU > Device Setup > System > GPS Settings > Disable GPS** OR from the Satellites Page, go to **MENU > Disable GPS.**
- ▶ Use batteries with higher milliamp-hour (mAh) ratings (such as Energizer® Ultimate Lithium).

Turning the PN-Series GPS On or Off

The **Power** button  is at the bottom right corner of the button area.

- ▶ To turn on the device, press and hold **Power** until you see the Welcome screen, and then release the button.
- ▶ To turn off the device, press and hold **Power** until you see the "Shutting down the device" message, and then release the button.

To view or hide Demo Mode

When you first turn on the device, it opens in Demo Mode.

- ▶ To view the demo, follow the on-screen instructions.
- ▶ To exit the demo, press **QUIT**.
- ▶ To disable Demo Mode—from the first screen, press **ENTER** to clear the **Show at Startup** check box.
- ▶ To restore Demo Mode, go to **MENU > Device Setup > System > GPS Settings > Demo Mode.**

Data Management

The PN-Series GPS stores routes and the base map in its internal memory. Tracks, waypoints, and geocaches are saved to the SD card in the device. You can save user maps—including the PN-Series detailed DeLorme Topo North America™ maps you received on DVDs with your device—to the device's internal memory or an SD card (SD/SDHC/MMC).

To view and manage memory information, go to **MENU > Device Setup > System > Memory Use**.

Detailed Map Data

Your device comes with a base map showing overview-level worldwide coverage, as well as North American interstates and routes, state routes, and major roads. While this provides a great view of a large area, you need a detailed view of a smaller area for hiking, geocaching, and other activities.

You can transfer detailed maps and map packages to the PN-Series GPS using:

- ▶ **PN-Series detailed map DVDs**—Included with your device are DVDs with detailed pre-formatted DeLorme Topo North America™ data. This data includes detailed routable road and topographic data for the U.S. and Canada and major road data for

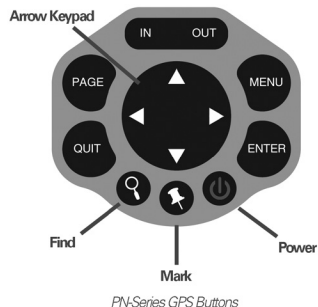
Mexico. Insert the DVD for your area of interest in your computer's DVD drive and follow the on-screen instructions to easily copy the maps onto your device.

Note Elevation data and land cover is not available for Mexico.

- ▶ **Compatible DeLorme mapping software**—Instructions for sending map packages, data, draw layers, and more to your PN-Series vary by application. For more information, see the mapping application's Help.
- ▶ **Map Library**—Use the NetLink tab in your DeLorme mapping software or the DeLorme Online Map Center (data.delorme.com) to download many types of imagery and data, such as satellite imagery, aerial imagery, USGS Topo Quad maps, NOAA nautical charts, and more. With an annual Map Library subscription, you can download unlimited imagery and data for the entire year—the maps are yours to keep.
- ▶ **Non-DeLorme maps**—DeLorme's professional GIS software, XMap®, allows you to register non-DeLorme maps and transfer them to a PN-Series GPS.
- ▶ **Navionics lake maps and marine charts**—Add fishing maps as well as boating maps and charts to your device with Navionics SD cards. For more information, see *Navionics* on page 21.

General Information

Using the Buttons



Power

Use the **Power** button to turn the PN-Series GPS on and off, lock the buttons, or to change the backlight settings.

- ▶ To turn on the device, press and hold the **Power** button until you see the Welcome screen.
- ▶ To turn off the device, press and hold the **Power** button until the "Shutting down the device" message displays. Then, release the button.
- ▶ To open the Power Options screen, quickly press and release the **Power** button. The following options are available:

- » To change the backlight intensity, use the arrow keypad to adjust the backlight slider.
- » To lock the buttons, select **Yes** when you see the **Lock the buttons?** message.
- » To unlock the buttons, press **Power**. Then, select **Yes** when you see the **Unlock the buttons?** message.

Tip Reducing the backlight intensity and decreasing the timer can significantly improve battery life. The daylight readable TFT screen is readable in direct sunlight or slanting light conditions. For more information about backlight intensity and the backlight timer, see the **Device Setup > Display** section on page 61.

In/Out

Use the **IN/OUT** button to zoom the map in or out or scroll through a list.

- ▶ Press **IN** once to zoom the map in one level and show more detail.
- ▶ Press and hold **IN** to zoom the map in all the way.
- ▶ Press **OUT** once to zoom the map out one level and show less detail.
- ▶ Press and hold **OUT** to zoom the map out all the way.

- ▶ Press **IN** or **OUT** to move forward or backward a page at a time.

Page

Press the **PAGE** button to move forward through the pages in the page order sequence. To add, remove, or reorder pages, go to **MENU > Device Setup > Page Order** (see *Page Order* on page 64).

The default page sequence is Satellites, Map, Compass, Trip Info, and Directions (when navigating).

Menu

Press the **MENU** button to access functions for the page or screen you are using and pages that are not enabled in the page order.

- ▶ The menu's top section lists actions specific to the active page—select the item and press **ENTER**.
- ▶ The bottom section lists the pages you may want to quickly access at any time.

Find

The **Find** button is labeled with a magnifying glass. Use it to search for a point of interest, waypoint, geocache, address, coordinate, and more. You can search for a location by name or by its proximity to the current map center. For more information, see *The Find Page* section starting on page 29.

Mark

The **Mark** button is labeled with a pushpin. Use it to mark a waypoint at your current GPS location or, when panning, at the cursor location. Once you mark a waypoint, use its details page to manage it, view it on the map, or create a route to it. For more information, see *The Waypoints Page* section starting on page 33.

Arrow Keypad

Use the arrow keypad to move around pages and screens.

- ▶ Press once to move the map cursor left, right, up, or down in increments.
- ▶ Press and hold to pan the map.
- ▶ Highlight options in menus or lists. Press down to move to the next entry, press up from the first entry to go to the last entry, or down from the last entry to go to the first entry.
- ▶ Highlight fields and highlight characters on the keyboard screen.
- ▶ Press and hold to quickly scroll through a menu or list.
- ▶ On the Map Page, press any arrow once to turn on the backlight without changing the map view.

Enter

Press the **ENTER** button to:

- ▶ Select a menu entry, field, or screen button.



- Get information about a point on the map to see detailed information, if available.

Quit

The function of the **QUIT** button varies depending on the status of the PN-Series GPS; some of the things you can do are:

- Exit a page or screen.
- Cancel actions (for example, panning).
- Close the keyboard and cancel changes.
- Delete individual points when measuring distance.
- Move backwards through the page order sequence.







Using the Keyboard

The on-screen keyboard is available when you need to enter text, such as when editing a waypoint label, adding text to a comment field, or entering search parameters. Use the arrow keypad to highlight the letter (A–Z), number (0–9), symbol (+, -, /, &), or punctuation you want to use, and then press **ENTER** after each selection. When you are finished, highlight **OK** and press **ENTER**. For existing text, enter a letter to replace the highlighted content. To keep the existing text but move the cursor to the beginning/end of the text, select  to move the cursor to the beginning or  to move the cursor to the end of the text.



On-screen keyboard

Special Keys

-  Move the cursor one space to the left without deleting a letter or number.
-  Move the cursor one space to the right without deleting a letter or number.
-  Change the case of the next letter (the active case is shown in the keyboard). To use all caps, highlight and then press **ENTER** twice.
-  Move the cursor one space to the left, deleting the character that was there.
-  Move the cursor one space to the right, leaving a blank space.
-  Clear the content of the text field being edited. Accept the changes made to the text field and close the keyboard.

OK Insert a line break and move the cursor to the next line.

Keyboard Shortcuts

These button presses on the PN-Series GPS are keyboard shortcuts.

- ▶ **IN**—Delete the last character
- ▶ **OUT**—Add a space
- ▶ **Find**—Shift (for upper case)
- ▶ **Mark**—Highlight **OK**
- ▶ **QUIT**—Exit the keyboard

Rotating the Display

You can choose to allow the screen to rotate when you turn the device upside down. The keys on the arrow keypad adjust so that they match the device's orientation. If you want the display to rotate, go to **Device Setup > Display > Enable Screen Rotation** and select the check box.

Taking a Screenshot

To take a screenshot, hold **Power** and press **ENTER**.

- ▶ An SD card must be inserted in the device.
- ▶ The **Screenshots On** check box must be selected in **Device Setup > Display**. This creates a "screenshots" folder.

- ▶ View the SD card Contents and open the screenshots folder. If the SD card is still in the device, go to **Device Setup > Connect to Computer > Open SD Card**.

Info Fields

The Map, Compass, and Trip Info Pages include fields of information that you can customize to suit your needs. It is easy to go back to the default device settings at any time. Info fields on other pages cannot be changed. For more information about what info fields contain, see the *Info Fields Table* on page 74.

To hide or show info fields

On the Map Page, you can hide info fields for a full-screen view of the map or show them to get information.

- ▶ To hide info fields, go to **MENU > Info Fields > Hide Info Fields**.
- ▶ To show hidden info fields, go to **MENU > Info Fields > Show Info Fields**.

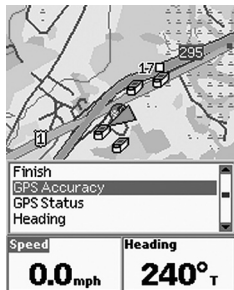
Note Info fields must show to change, arrange, or restore them to the default settings.

To arrange info fields

On the Map Page and Compass Page, you can change how info fields look on the screen. You can customize the info field arrangement differently for tracking and navigating. Go to **MENU > Info Fields > Arrange Info Fields**.

To change the size of the text

On the Trip Info Page, you can change the size of the text that displays, which also changes the number of info fields. When the device is set to the small text option, it displays eight info fields (2 wide, 6 narrow)—when it is set to the large text option, it displays three wide info fields. Press **MENU**. The available text size option is preceded by "Switch to"—highlight the option and press **ENTER**.



Change Info Fields option

To change info fields

On the Map Page, Compass Page, and Trip Info Page, you can customize which info fields display for normal use and when navigating. To change info fields for navigating, make the changes while the device is navigating a route.

1. From the page, go to **MENU > Info Fields > Change Info Fields**.

2. Select the info field you want to change and press **ENTER**. A list of available info fields opens.
3. Select the new info field and press **ENTER**.
4. When you finish changing info fields, press **QUIT**.

To restore info fields

On the Map, Compass, and Trip Info Pages, you can restore the information fields to their default settings. This restores which fields show and their arrangement. From the page, go to **MENU > Info Fields > Restore Default Info Fields**.

Units

You can select the units for different types of measurements that are used on the PN-Series GPS.

To change the units, from any page go to **MENU > Device Setup > Units**.

For more information, see *Units* on page 9.

Navigating or Tracking

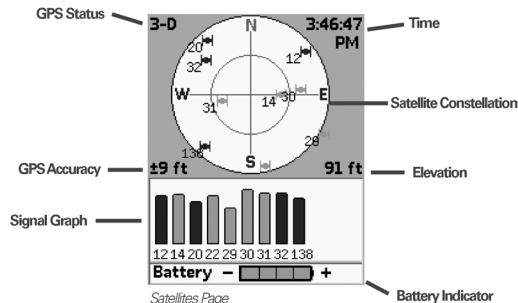
Tracking is the normal state of the device when it has a GPS fix. You can turn off track recording, but the device is still in tracking mode. When you follow a route on the device, you are navigating.

Visit the DeLorme Wiki at wiki.delorme.com for more information. The latest version of the User Manual is always available for download.

The Satellites Page

The Satellites Page displays GPS and satellite information, time, elevation, and the battery indicator.

It is the first page in the default **PAGE** button order. If you have removed the Satellites Page from the **PAGE** button order, go to **MENU > Satellites** to view it.



Constellation and Signal Graph

Both the satellite constellation and the satellite signal graph display visible satellites and their identifying numbers. The satellite constellation depicts each satellite's position in the sky relative to the device's current position.

The signal graph bars indicate the strength of each satellite signal.

The icons in the satellite constellation and the lines in the signal graph are color-coded based on the quality of the data they are transmitting:

- ▶ **Red**—The receiver is tracking the satellite, but it is not using it to navigate.
- ▶ **Green**—The receiver is tracking the satellite, ephemeris data is available, and the satellite is being used for navigation.
- ▶ **Yellow**—The receiver is tracking the satellite, predicted ephemeris data is available when a 3-D fix has not been obtained, and the satellite is being used for navigation.
- ▶ **Blue**—The receiver is tracking the satellite, ephemeris data is available, the satellite is being used for navigation, and WAAS corrections are available.

GPS and WAAS Status

The Global Positioning System (GPS) is a system of satellites that orbit the earth to provide position and navigation information. The Wide Area Augmentation

System (WAAS) is system of satellites and ground stations that correct GPS signals to improve accuracy. For more information about GPS and WAAS, visit the DeLorme Wiki (wiki.delorme.com).

The GPS status is based on the satellite acquisition status:

- ▶ **GPS Off**—The GPS receiver is turned off.
- ▶ **No Fix**—The GPS cannot find sufficient satellite data to determine your current GPS position.
- ▶ **2-D**—The GPS connection is successful, but the connection quality is not as good as a 3-D fix. Move your receiver to another location to get better reception.
- ▶ **3-D**—The GPS is receiving sufficient satellite data (horizontal position and elevation) to determine your location.

When the letter W appears below 2-D or 3-D, the PN-Series GPS has a WAAS connection (available only in North America) that provides up to five times greater position accuracy than a regular 2-D or 3-D connection.

To set the current location

If it takes a long time for the PN-Series GPS to obtain a 2-D or 3-D fix, verify it has a clear view of the sky. Be sure that trees, buildings, and other obstacles are not blocking the device.

If the device still cannot obtain a 2-D or 3-D fix, go to **MENU > Set Current Location**. When the Map Page displays; pan the map to your current location and press **ENTER**.

If the PN-Series GPS is unable to acquire a fix after approximately ten minutes, you will be prompted to disable the GPS or continue searching for satellites.

To disable GPS

You can use many features on the PN-Series GPS without a GPS fix. When GPS mode is turned off, GPS OFF displays on the screen and all satellites are removed from the satellite constellation.

There are two ways to disable the GPS.

- ▶ From the Satellites Page go to **MENU > Disable GPS**.
- ▶ From any page, go to **MENU > Device Setup > System > GPS Settings > Disable GPS**.

To turn on GPS mode, follow the same steps and select **Enable GPS**.

GPS is temporarily disabled when in simulation mode (during track playback and navigation simulation).

Time

You can change the time format, time zone, and manually enable or disable Daylight Saving Time. The time is automatically set from GPS satellites and is highly accurate.

To change the time settings, go to **MENU > Device Setup > Time**.

GPS Accuracy

In the lower left corner of the Satellites Page, the GPS accuracy displays. This is the calculated accuracy of the GPS, expressed in distance. The actual location is within plus or minus the distance indicated of the location represented by the GPS.

On the Map Page, GPS accuracy is represented by a circle with a radius equal to the GPS accuracy; your actual location on the map is within the circle.

Any buildings, natural structures, or heavy foliage that obstruct the GPS antenna's view of the sky may prevent satellite signals from reaching the receiver and decrease the accuracy of your position. Placing the PN-Series GPS in a jacket or backpack pocket should not affect positional accuracy.

Battery Indicator

The battery indicator depicts the available battery power:

- ▶ **Four green bars**—Indicates a full charge.
- ▶ **Three green bars**—One quarter of the battery power has been used.
- ▶ **Two yellow bars**—One half of the battery power has been used.

- ▶ **One red bar**—Three quarters of the battery power has been used. Once the battery has reached 5% of its total battery power, a low battery warning displays.

When a DeLorme Li-ion battery is charging, the battery indicator graphic is animated and the word "Battery" is replaced with "Charging." Once the battery is fully charged, the battery indicator graphic displays four static green bars and "External" displays until you disconnect the USB cable.

If you are not using the DeLorme Li-ion battery, "External" displays whenever you plug your device into your computer.

Elevation

PN-40 Only

The elevation is based on the current barometric altimeter reading. When the Auto Calibrate Altimeter option is enabled, you may see the word "Calibrating" in the bottom right corner of the screen while the altimeter adjusts—typically 2-3 minutes. If you are using the Elevation: Altimeter info field on any page, you may see a red exclamation point in the field while the altimeter adjusts. For more information about calibrating the altimeter, see *Altimeter Calibration* on page 68.

Compass and Altimeter

PN-40 Only

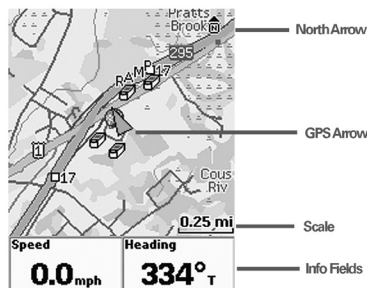
You can calibrate the PN-Series GPS's electronic compass and barometric altimeter with the Calibrate option on the Satellite Page menu, the Compass Page menu, and the Device Setup > Compass & Altimeter menu. The Device Setup > Compass & Altimeter options allow you to disable/enable the electronic compass, the barometric altimeter, and the auto-calibrate altimeter option. For more information, see *Compass and Altimeter* starting on page 67.

Visit the DeLorme Wiki at wiki.delorme.com for more information. The latest version of the User Manual is always available for download.

The Map Page

The Map Page centers the map on your current location when the PN-Series GPS has a 2-D or 3-D fix. When it does not have a GPS fix, the map displays your last GPS position. For more information, see *GPS and WAAS Status* on page 10.

The Map Page is the second page in the default **PAGE** button order.



Map Page

GPS Arrow

The GPS arrow displays on the map when GPS is enabled. The color of the GPS arrow depends on your GPS signal

and the arrow points in the direction of the last known heading.

- ▶ **Flashing red**—The device cannot obtain a GPS signal and is not tracking satellites.
- ▶ **Blue**—The device is in Track Playback mode or Simulate Navigation mode.
- ▶ **Yellow**—The device has a 2-D fix and predicted ephemeris data is available.
- ▶ **Green**—The device has a 3-D fix.

Tracking

When tracking satellites, a track line—also known as a breadcrumb trail—follows the GPS arrow as you move. If you have turned off track recording, the track does not appear. For more information, see *The Tracks Page* section starting on page 51.

Scale and Orientation

For information about:

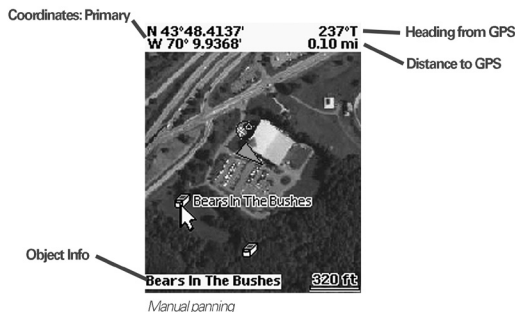
- ▶ Setting the scale, see *Scale* on page 20.
- ▶ Map orientation, see *Orientation* on page 19.

Panning the Map

There are two ways to pan the map. When you pan the map, the map cursor—a white arrow—shows your location.

- ▶ **Automatic panning**—When GPS tracking or navigating, the map automatically pans in the direction of travel. The map does not automatically pan when the map cursor is visible. Press **QUIT** to remove the map cursor and return to automatic panning.
- ▶ **Manual panning**—To manually pan the map, use the arrow keypad to move the cursor in the direction you want to view.
 - » Use single presses to move the cursor in increments.
 - » Press and hold to quickly pan to a new location.
 - » Hold the cursor at the edge of the screen to keep panning in that direction; the map will move to the new location.
 - » Press **QUIT** to center the map on your current location.

As you pan, a text field at the top of the map displays information about the cursor location. When you stop the cursor over an object, the field in the bottom left corner displays the object name.



Getting Location Information

For information about objects at your current GPS location, press **ENTER**.

OR

Pan the map to a new location. When you stop the cursor over an object, its name is displayed in the bottom left corner of the map. Press **ENTER**.

- ▶ For single objects, the object details page displays. Mark a waypoint, view it on the map, or route to it.
- ▶ For multiple objects, the Multiple Objects screen displays a list of the objects at that location; user-created objects (such as waypoints) appear at the top of the list. Select an object and then press **ENTER** to view its details page.

Info Fields

You can hide/show, change, and arrange the info fields at the bottom of the Map Page. The info fields change when you are navigating. To access the Info Fields options, go to **MENU > Info Fields**. For more information, see *Info Fields* on page 8.

Measure Distance and Area

Use the measurement tool to measure the distance of a line or the perimeter and area of a polygon on the map.

To measure distance

From the Map Page, go to **MENU > Measure Distance**.

- ▶ Use the arrow keypad to move the cursor to the area on the map where you want to place the first point of the line or polygon and press **ENTER** to place the first point. Repeat for each point.
- ▶ To undo a point, press **QUIT**.
- ▶ To make a polygon, you must close the shape. Place the last point on top of the first point by hovering the cursor over the start location and pressing **ENTER** to snap the point and close the polygon.

While you are measuring distance, the pan location information that displays in the top right corner of the screen changes to display the heading from the last measurement node to your current GPS location, the leg distance, and

the total distance from the last measurement node to the first measurement node. Once you close a polygon, it displays the area.

You can also measure area using a track. See *Calculating the Area of a Track* on page 54.



Measure distance and area

Map Setup

Use the Map Setup page to customize the map. You can change the order of data layers; show or hide maps and imagery; choose map orientation and scale; and determine how various information displays on the map.

From the Map Page, go to **MENU > Map Setup**.

Data Layering

The pre-installed base map on the device shows

high-level world coverage, as well as more detailed North American coverage. You can add maps, data, imagery, draw files, and more to your device to supplement the base map. When you add different types of maps to the same area, you can customize the order in which the layers appear.

For more information about the types of data you can add to your PN-Series GPS, see *Detailed Map Data* on page 4.

To manage individual map packages that you have added to your device, see *Data Management*.

Only the data types you have on your device show in the Data Layering list. The default order for layering data is:

- ▶ GIS layers by name (XMap® only)
- ▶ Draw Layers
- ▶ Public Lands
- ▶ User Raster Data (XMap only)
- ▶ Custom Raster Data (XMap only)
- ▶ ImageReg (XMap only)
- ▶ Digital Globe 30cm (DG 30cm)
- ▶ High-resolution City Imagery (Hi-Res Cities)
- ▶ Digital Globe 60cm (DG 60cm)
- ▶ Digital Globe 1m (DG 1m)
- ▶ Color Aerial Imagery (Color DOQQ)
- ▶ Aerial Imagery (DOQQ)
- ▶ USGS Quads (3DTQ)

- ▶ Canadian 1:50K Topographic Sheets (Canadian 1:50K)
- ▶ NOAA Nautical Charts (NOAA Charts)
- ▶ Satellite Imagery (SAT10)
- ▶ XMap Topographic Data (XMap only)
- ▶ DeLorme Topographic Data (Topo North America 9.0)
- ▶ DeLorme World Base Map 7 (XMap only)

To layer data

Use the Data Layering option to select the types of data you want to view on your PN-Series GPS and the order in which you want data to display.

From the Map Page, go to **MENU > Map Setup > Data**

Layering to view a list of all the types of data you have stored on your device's internal memory or on an SD card in the device; this may include data that is not available for the area you are viewing. When you highlight an item, the full name of the data type shows in the box at the bottom of the screen.

- ▶ To show a type of data, select the check box next to it.
- ▶ To hide a type of data, clear the check box next to it.
- ▶ To change the order in which data is layered, highlight the item you want to move, then use the arrows on the right side of the screen to move the item up or down in the list. If two data types have identical zoom level settings, the one higher in the list has precedence.
- ▶ To select/deselect all check boxes, go to **MENU > Select All** or **MENU > Deselect All**.

- To reset the default layer settings (all check boxes selected and data ordered as in the list above), go to **MENU > Restore Layer Defaults**.

Data Management

After you add a map—also called a map package or a map file—from a compatible DeLorme mapping program or the DeLorme Online Map Center to the PN-Series GPS, you can show or hide it on the device; view details about it, including where it is stored; or delete it. To change the priority of how different *types* of map data are displayed, see the previous section—*Data Layering*.

For more information about the types of data you can add to your device, see *Detailed Map Data* on page 4.

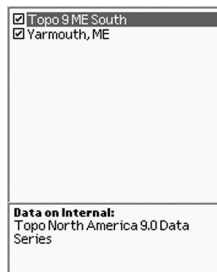
To manage maps and data

From the Map Page, go to **MENU > Map Setup > Data Management** to view a list of the map packages you have stored in your device's internal memory or on an SD card in the device. When you highlight an item, the type of data and location shows at the bottom of the screen.

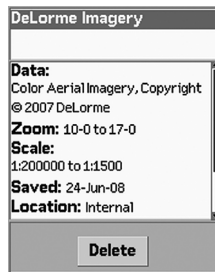
- To show the map package, select its check box.
- To hide the map package, clear its check box.
- To select/deselect all check boxes, go to **MENU > Select All** or **MENU > Deselect All**.
- To view the map package on your device, highlight

it and go to **MENU > View Map**.

- To view details for a map package, highlight it and go to **MENU > Data Detail**. This displays the name, data types, zoom level, scale information, save date, location (internal or SD card), and version information.
- To delete a map package, highlight it and go to **MENU > Data Detail > Delete**.



Data Management



Data Management detail

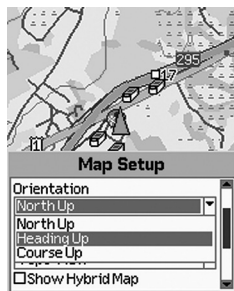
Turn Imagery On/Off

When you have added map packages that include imagery to your PN-Series GPS, you can quickly turn the imagery off or on.

From the Map Page, go to **MENU > Turn Imagery On** or **Turn Imagery Off**.

Orientation

You can set the map to rotate as you move.



Orientation

To change the map orientation

From the Map Page, go to **MENU > Map Setup > Orientation** and select the map orientation from the drop-down list.

- ▶ **North Up**—North is always at the top of the map screen.
- ▶ **Heading Up**—The direction in which you are traveling is always at the top of the map screen. The North Arrow displays in the top right corner of the map screen.
- ▶ **Course Up**—The direction of the finish of your route is always at the top of the map screen. The North

Arrow displays in the top right corner of the map screen when navigating.

If you want Heading Up or Course Up to automatically switch to North Up above the specified scale (depends on the units of measure you have set), select the **North Up above... scale** check box.

Map Style

Topo View displays all topographic data as it was saved in the map package; this is the default view. Street View hides the contours and land cover for a clean road map that is easier to view when driving.

To change the map style, from the Map Page go to **MENU > Map Setup > Map Style** and select **Topo View** or **Street View** from the drop-down list.

Hybrid Map

You can show points, lines, and labels on top of imagery. Hybrid maps are visible at scales of 640 feet and higher.

From the Map Page, go to **MENU > Map Setup > Map Style > Show Hybrid Map** and select the check box.

Map Point Management

Customize how points of interest (POIs), waypoints, and geocaches display on the map.

From the Map Page, go to **MENU > Map Setup > Map**

Point Management. Use the drop-down list for each option to select how you want it to appear on the map. To hide logged geocaches, select the **Hide Logged Caches** check box.

Scale

The scale option lets you set the type of scale you want to use on your maps.



Scale options

To set the scale

From the Map Page, go to **MENU > Map Setup > Scale** and select an option.

- ▶ **Bar**—Represents a given length on the map compared to an actual length.
- ▶ **Zoom**—The DeLorme method of describing map detail level. Each time the zoom level increases,

the scale doubles.

- ▶ **Ratio**—Shows a ratio of a unit on the device compared to the actual unit.



Navigating

Other Menu Options

When navigating or viewing a route on the map, additional options are available on the Map Page menu.

View Comment Details

When navigating, go to **MENU > View Comment Details** to quickly view the comment for the waypoint, geocache, or point you are navigating to. The comment for the most recently viewed point is displayed.

Log Your Geocache Find

When navigating to a geocache, use the Log Your Geocache Find option to quickly log geocaches, write field

notes, and pick your next cache. For more information about all of these features, see *The Geocaches Page* section starting on page 38.

Route Options

When navigating, use Route Options to stop navigating, get back on track, or switch the route type. For more information about route options, see *Edit Route Settings* on page 46.

Go to **MENU > Route Options** and select **Stop Navigating, Back on Track**, or **Switch to Hiking/Driving** (the option you can switch to displays).

Hide Route

When you are viewing a route on the map, you can hide it. Go to **MENU > Hide Route**.

Navionics

You can use Navionics® HotMaps Premium Lake Maps and GOLD+ Marine Charts with your PN-Series GPS. The charts are available on SD cards that you insert into your device. For more information about the charts that are available, visit navionics.com.

General Information

- ▶ Navionics information appears on the device only when have a Navionics SD card in your device.
- ▶ You cannot save maps or data to a Navionics SD card—the memory on the card is unavailable.
- ▶ The Navionics data overlays the DeLorme maps on device—the DeLorme maps are used for routing and Find.
- ▶ Tracks, routes, waypoints, and geocaches display over the Navionics charts.
- ▶ When you pan the map and select an object (other than those listed above) with the map cursor, Navionics information is displayed.

Turn Charts On/Off

You can quickly turn Navionics charts on or off. The Navionics chart closest to the map center automatically displays.

From the Map Page, go to **MENU > Turn Charts On**

or **Turn Charts Off**.

Note This menu option controls the Show Charts and Show Boundaries check boxes on the Navionics Setup page.

Navionics Setup

Customize the way Navionics charts appear on your PN-Series GPS. To access all of these options, go to **MENU > Map Setup > Navionics Setup**.

To select a chart

Select the chart or map you want to view—the contents of the SD card are listed in the Charts drop-down list. From the Navionics Setup page, go to select the chart or map you want to use from the **Chart** drop-down list.

To view a chart or map

To view the chart or map selected in the Chart drop-down list on the device, click **View Chart**.

To show charts or boundaries

Control how you view charts and their boundaries on the map—view charts alone, boundaries alone, or both together.

- ▶ To show charts, select the **Show Charts** check box.
- ▶ To show boundaries, select the **Show Boundaries** check box.

To hide charts by map scale

You can customize at which map scale you can view charts on the device.

From the **Hide Charts** check box, select the scale above which you want to hide the charts.

To set chart details

To change the detail level of your charts, select **High** or **Low** from the **Chart Details** drop-down list.

To show or hide contours

You can show all contours or select a level above which to view them.

From the **Hide Contours** drop-down list, select the option you want to use.

To set the safety depth

Set the safety depth or turn it off.

From the **Safety Depth** drop-down list, select the option you want to use.

To set the presentation mode

US and International charts have different symbols and markings. You can set the way you want this information to display.

From the **Presentation Mode** drop-down list, select **US** or **International**.

To show the depth in fathoms

If you want to show chart depths in fathoms instead of feet or meters, select the **Show Depth in Fathoms** check box.

To restore the default settings

To restore the default Navionics Setup settings, select **Restore Defaults**.

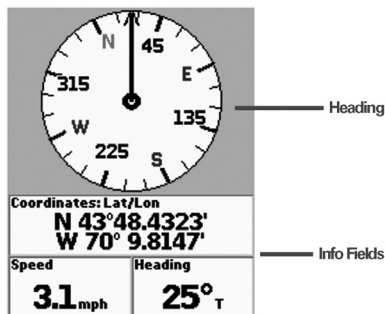
Tip On marine charts, select the Port Services symbol (pink ship) to view a list of services available at the location. You must zoom in to 640 ft/200 m to view the symbol.

Visit the DeLorme Wiki at wiki.delorme.com for more information. The latest version of the User Manual is always available for download.

The Compass Page

Use the Compass Page's graphic compass to help you find your destination. Both the PN-40 and the PN-30 use the GPS to determine compass readings when the device is moving. The PN-40 also has an electronic compass for use when the device is stationary or moving below 1.5 mph.

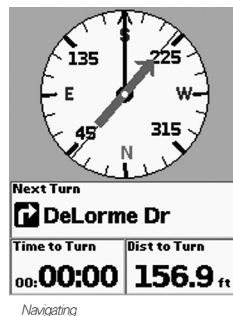
The Compass Page is the third page in the default **PAGE** button order. If you have removed the Compass Page from the **PAGE** button order, go to **MENU > Compass** to view it.



Compass Page

Bearing Arrow

On the Compass Page, the compass rotates so that the heading is always up. When you are navigating a route, a bearing arrow displays on the compass and the info fields update.



To change the Hiking Route Arrow

When you are navigating a hiking (direct) route, you can choose to have the bearing arrow point to the next waypoint in your route or point back on course if you leave the route. To set the hiking route arrow method; from the Routes Page, go to **MENU > Edit Route Settings >**

Compass Navigation Arrow.

To change the hiking route arrow from the Compass Page, go to **MENU > Compass Navigation Arrow > Direct to Next Waypoint** or **Back on Course**.

Info Fields

You can hide/show, change, and arrange the info fields at the bottom of the Compass Page. The info fields change once you start navigating a route. To access the Info Fields options, go to **MENU > Info Fields**. For more information, see *Info Fields* on page 8.

Electronic Compass

PN-40 Only

The PN-40 has an electronic compass that shows your direction when you are stationary or almost motionless. When your speed is 1.5 mph or higher, the compass reading is based on the GPS.

When the electronic compass reading is not accurate, “Poor Accuracy” displays in the bottom right corner of the screen, and a red exclamation point appears in the Heading info field. When you see this indicator, you may want to calibrate the compass unless you know the inaccuracy is caused by a temporary event, such as being near power lines or near a magnetic field caused by a car. You may want to disable the electronic compass when

you are in an area with magnetic interference. You should also calibrate the compass when you change batteries. For more information, see *Compass and Altimeter* starting on page 67.

Calibrating Sensors

PN-40 Only

You can calibrate the PN-40's electronic compass and barometric altimeter with the Calibrate option on the Satellite Page menu, the Compass Page menu, and the Device Setup > Compass & Altimeter menu. The Device Setup > Compass & Altimeter options allow you to disable/enable the electronic compass, the barometric altimeter, and the auto-calibrate altimeter option. For more information, see *Compass and Altimeter* starting on page 67.

Other Menu Options

When navigating, additional options are available on the Compass Page menu.

View Comment Details

When navigating, go to **MENU > View Comment Details** to quickly view the comment for the waypoint or geocache you are navigating to. The comment for the most recently viewed point is displayed.

Log Your Geocache Find

When navigating to a geocache, use the Log Your Geocache Find option to quickly log geocaches, write field notes, and pick your next cache. For more information about all of these features, see *The Geocaches Page* section starting on page 38.

Route Options

When navigating, use Route Options to stop navigating, get back on track, or switch the route type. For more information about route options, see *Edit Route Settings* on page 46.

Go to **MENU > Route Options** and select **Stop Navigating**, **Back on Track**, or **Switch to Hiking/Driving** (the option you can switch to displays).

Visit the DeLorme Wiki at wiki.delorme.com for more information. The latest version of the User Manual is always available for download.

The Trip Info Page

The Trip Info Page displays info fields that occupy the entire screen. You can customize each field with one of the many available info field options.

It is the fourth page in the default **PAGE** button order. If you have removed the Trip Info Page from the **PAGE** button order, go to **MENU > Trip Info** to view it.

Next Turn	
US 1	
Distance to Finish	
2.92 mi	
Time to Turn	Dist to Turn
00:02:49	0.42 mi
Trip: Moving	Speed
00:06:40	21.4 mph
Trip: Total	Speed: Avg
07:37 :41	0.5 mph

Trip Info while navigating

Info Fields

You can hide/show, change, and arrange the info fields. You can also use the large text option, which displays in three horizontal info fields. The info fields change when

you are navigating. For more information, see the *Info Fields* section beginning on page 8.

For descriptions of all the info fields, see the *Info Fields Table* section beginning on page 74.

To reset the trip information

Use the Reset Trip Info option to start a new trip and reset the trip values (trip odometer, time moving, time stopped, and time total), speed information (average, maximum, and moving average), elevation (maximum and minimum), and the device odometer. Track recording is not reset. If you want to keep track of all your travels on your device, clear the **Device Odometer** check box before you reset your information.

1. From the Trip Info Page, go to **MENU > Reset Trip Info**.
 - » To reset an option, select the check box next to it.
 - » To exclude an option from being reset, clear the check box next to it.
2. Select **Reset Now**.

Other Menu Options

When navigating, additional options are available on the Trip Info Page menu.

Visit the DeLorme Wiki at wiki.delorme.com for more information. The latest version of the User Manual is always available for download.

View Comment Details

When navigating, the View Comment Details option allows you to view any available comments for the geocache or waypoint you are navigating to. The comments for the most recently viewed point display.

Log Your Geocache Find

When navigating to a geocache, use the Log Your Geocache Find option to quickly log geocaches, write field notes, and pick your next cache. For more information about all of these features, see *The Geocaches Page* section starting on page 38.

Route Options

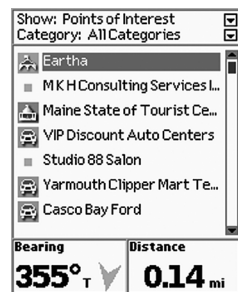
When navigating, use Route Options to stop navigating, get back on track, or switch the route type. For more information about route options, see *Edit Route Settings* on page 46.

Go to **MENU > Route Options** and select **Stop Navigating**, **Back on Track**, or **Switch to Hiking/Driving** (the option you can switch to displays).

The Find Page

Use the Find Page to search for addresses, roads, cities, points of interest (POIs), waypoints, geocaches, coordinates, and more on your PN-Series GPS.

To open the Find Page, press the **Find** button .



Find Page

Search Methods

There are two Find search options. The most recent search method you use is saved between searches.

- **Find Near Map Center**—This is the default search method. The device searches from the current GPS location; if GPS is disabled or if you are panning the

map or viewing another location, it searches from the current map center. The search continues until the maximum number of search results (100) is found.

- **Find by Name**—Use this option to search for a specific location by its name. Results are listed alphabetically.
Narrow a Name search with the Name Contains or Name Begins with options—press **MENU** to access them.
 - » **Name Begins With**—In the **Name** field, type one or more letters that the name begins with; the more letters you enter, the more relevant your results are.
 - » **Name Contains**—In the **Name** field, type one or more characters that the name contains; the more characters you enter, the more relevant your results are.
- For some search types, you can also narrow your search with additional parameters, such as categories or symbols.
- When the City, State, or Country fields are available, the more information you enter, the more refined your search results are. If you do not enter anything or if those fields are unavailable, the search starts from the map center.

- ▶ To clear all fields into which you have entered information, go to **MENU > Clear All Fields**.

To view the search method you are using

Go to **Find > MENU**. The available options are preceded by "Switch to..." and the device is set to the option that is not showing. To change the search method, select the method you want to use.

Searching for a Location

To search for a location, press **Find** at any time. The search begins, using the current search criteria.

- ▶ You can change the search method.
- ▶ You can use additional search parameters, when available, to narrow your search.
- ▶ "Searching >>>" displays as the device searches for locations.
- ▶ At any time, press the arrow keypad to stop the search process.
- ▶ If the search process is stopped, select **Continue Search** to keep searching.

Show

The Show field is the primary search category. You can select the following Show options; below each option is a list of information you can change to improve your

search results:

- ▶ **All**
State/Country/City/Name (Find by Name only)
- ▶ **Recent Finds**—Shows the ten most recent search results.
- ▶ **Draw Layers** (appears only if you have draw layers on the device)
Name (Find by Name only)
- ▶ **GIS Layers** (appears only if you have GIS layers on the device)
Name (Find by Name only)
- ▶ **Waypoints** (from the current file)
Symbol
Name (Find by Name only)
- ▶ **Geocaches** (from the current file)
Symbol
Name (Find by Name only)
- ▶ **Points of Interest**
Category
State/Country/City/Name (Find by Name only)
- ▶ **Natural Features**
Category
State/Country/City/Name (Find by Name only)
- ▶ **DeLorme Atlas & Gazetteer Points**
Category

State/Country/City/Name (Find by Name only)

► Addresses

State/Country/City/Building Number/Street Name
(Find by Name only)

► Coordinates

Coordinates can be edited.

► Streets/Trails

State/Country/City/Name (Find by Name only)

► Cities

State/Country/Name (Find by Name only)

Show: Addresses <input checked="" type="checkbox"/>	Show: Points of Interest <input checked="" type="checkbox"/>
State: ME Country: <input type="checkbox"/>	Category: All Categories <input type="checkbox"/>
City: Brunswick	All Categories
Building Number:	All Businesses
Street Name: Pleasant	Accommodations
== (92-299) US 1	Airports
== (1-91) Pleasant St	Amusements/Recreation
== (92-299) US 1	Camping/RV Park
== (1-91) Pleasant St	Education
== (1-836) Pleasant Hill Rd	Emergency Services
	Exits and Rest Areas
	Fast Food/Snacks
	Gas Stations
	Government
	Major Shopping
Bearing	Distance
52° T ▲	11.82 mi

Address (Find by Name)

POI (Find Near Map Center)

To edit/change search fields

When a field is highlighted, you can edit or change it.

To edit a field, press **ENTER** and use the available option (drop-down list, arrow keypad, or keyboard) to make changes. When you are finished editing, press **ENTER**.

Search Results

Search results are displayed in a list. When you highlight an item in the list, the Bearing and Distance info fields display measurements as follows:

- From the GPS position when the device has a GPS fix.
- From the cursor location if you are manually panning or viewing another location.
- From the map center if the GPS receiver is turned off.

To view the results list

To view the results, use the arrow keypad to scroll through the list. The maximum number of results for each search is 100.

To view search result details

To view the details for an item on the list, select it. The search result details page displays.

Symbol/Label	
Eartha	
Information	
Tourist Attraction	
Yarmouth, ME 04096	
Bearing	Distance
355° T ▼	0.14 mi
Mark	View Route

Search result details

To mark a waypoint for a search result

On the search result details page, select **Mark**. The result is saved as a waypoint and the waypoint details page displays; you can edit the information. For more information see *To edit waypoint details* on page 36.

To view/center a search result on the map

On the search result, waypoint, or geocache details page, select **View**. The Map Page displays and is centered on the search result. Press **QUIT** to return to the details page.

To create a route to a search result

You can navigate directly to the search result from your current location. For more information about creating and modifying routes, see *The Routes Page* starting on page 46.

1. On the details page for the search result, select **Route**.
2. On the route details page, select **Navigate**.

Note When you are creating a route from a geocache details page, go to step 3.

3. Select **Hike** or **Drive**.

The route calculates and the Map Page opens in navigation mode.

Visit the DeLorme Wiki at wiki.delorme.com for more information. The latest version of the User Manual is always available for download.

The Waypoints Page

A waypoint is a location that you mark and store using the PN-Series GPS. You can also transfer waypoint files to an SD card in the device. Waypoints are identified by coordinates, and you can assign a symbol, name, and other information to them. The Waypoints Page lets you view a list of the active waypoints on your PN-Series GPS. Waypoints are active when you:

- ▶ Open a waypoint file
- ▶ Mark a new waypoint

For information about geocache waypoints, see *The Geocaches Page* section starting on page 38.

XMap 7 users See the supplemental online help on the DeLorme Wiki (pn40.wiki.delorme.com/xmap) for information about using XMap with the Waypoints Page.

To open the Waypoints Page, from any page go to **MENU** > **Waypoints**. If you have added the Waypoints Page to the **PAGE** button order, it is no longer available on menus. Press the **PAGE** button until it appears.



Waypoints page

Managing Waypoint Files

Waypoints are managed using GPX files with an SD card in your device; each file can contain up to 1,000 waypoints. For more information about GPX files, see *File Management* starting on page 66.

Tip Use **Find** to quickly locate a waypoint in the open waypoint file. For more information, see **The Find Page** section starting on page 29.

Waypoint List

The Waypoints Page displays a list of waypoints from the

GPX file open on your device. The file name and the number of waypoints in the file appear at the top of the page. When you highlight a waypoint in the list, the Bearing and Distance info fields display measurements as follows:

- ▶ From the GPS position when the device has a GPS fix.
- ▶ From the cursor location if you are manually panning the map.
- ▶ From the map center if the GPS receiver is turned off.

Sorting the List

There are two ways to sort your list of waypoints—by distance from your GPS location or alphabetically by name. From the Waypoints Page, press **MENU**; the device is set to the option that is not showing. To switch to the highlighted option, press **ENTER**. If the file has a large number of waypoints, press **ENTER** to interrupt the sorting process and see a partial list.

Symbols

The waypoint symbols available on the PN-Series GPS match the PN-Series symbol set in your DeLorme mapping application. The symbol set includes geocaching symbols (these are at the end of the symbol list). To ensure a waypoint displays on the Waypoints Page, use a waypoint symbol. If you use a geocaching symbol, the waypoint will display only on the Geocaches Page. To see the

geocaching symbols, go to page 39. For a complete list of symbols, see the DeLorme Wiki (wiki.delorme.com).

File Menu

Use the File menu to manage waypoint GPX files stored on the SD card in the device, as well as waypoints you create on the device. For more information about files, see *File Management* on page 66.

To open the File menu, from the Waypoints Page, go to **MENU > File**. The following options are available:

- ▶ **New**—Create a new GPX file and name it. When you turn off the device, the file will automatically be saved.
- ▶ **Open**—View a list of files on the SD card. Select the file you want to open and press **ENTER** to view the waypoints on the device.
- ▶ **Save As**—Save the open file as a new file and name it. If you have made any changes to the open file, the changes are saved in the new file—the original file does not retain the changes.
- ▶ **Close**—Close the open GPX file.

Marking a Waypoint

Use the **Mark** button on the PN-Series GPS to mark a waypoint at your current GPS location or at the map cursor if you are viewing another location on the map. When the waypoint is marked at the map cursor location, the

elevation is not available. When you press **Mark**, the waypoint is saved and a waypoint details page opens where you can edit the waypoint details. For more information, see *To edit waypoint details* on page 36.

Symbol/Label  DeLorme	
Coordinates: Lat/Lon N 43°48.4743' W070°09.8336'	
Elevation --	Time/Date 04:00 AM 15-May-09
Comments	
Delete View Route	

Waypoint details page

You can also mark waypoints using the on-screen **Mark** option on Find search result details and route point details pages.

When you mark a waypoint, the default waypoint symbol is a red map pin and the label is "Wpt 001." When you change the symbol or label, each new waypoint uses that format until you change either the symbol or the name.

When you add multiple waypoints with the same name, a sequential number is added to the name. For example, if you name a waypoint "Campsite," the second waypoint is named "Campsite 002" and so on.

When you mark a waypoint from a details page, such as a Find search result or a map object, the device uses the information available for the symbol and name. If no information is available, the red map pin is the default symbol.

To mark a waypoint on the map

From the Map Page, press **Mark** to save the waypoint to the current waypoint file. If a waypoint file is not open, a new file opens and you are prompted to name and save the file.

Once the waypoint is saved, the waypoint details page opens. On the waypoint details page, you can do the following:

- ▶ Edit the waypoint details.
- ▶ Delete the waypoint.
- ▶ View the waypoint on the map. To return to the waypoint details page, press **QUIT**.
- ▶ Create a route to the waypoint.

For more information, see *Managing Waypoints*.

To mark a waypoint from a search result or route point

On a Find search result details page or a route point details page, select **Mark** on the screen. The result is saved as a waypoint and the waypoint details page displays; you can edit the information.

Managing Waypoints

To view waypoint details

Use the waypoint details page to view detailed information a waypoint.

From the Waypoints Page, select a waypoint and press **ENTER**. The waypoint details page opens.

To edit waypoint details

On a waypoint details page, you can customize the waypoint symbol, label (name), coordinates, elevation, time/date, and comments.

To edit a field, use the arrow keypad to highlight it and press **ENTER**. Use the available option (drop-down list, arrow keypad, or keyboard) to make changes. When you are finished editing, press **ENTER**.

To view comment details

From the waypoint details page, go to **MENU > View Comment Details**.

Note When navigating, the View Comment Details option is also available from the Map, Compass, Trip Info, and Directions pages. The comment for the most recently viewed point is displayed.

To view/center a waypoint on the map

From the waypoint details page, select **View**; press **QUIT** to return to the waypoint details page.

To move the waypoint to the current GPS location

From the waypoint details page, go to **MENU > Move to GPS Location**. When you see the confirmation message, select **Yes**.

To create a route to a waypoint

You can navigate to waypoint from your current location. All driving routes and hiking routes with multiple points are automatically saved. For more information about creating and modifying routes, see *The Routes Page* starting on page 46.

1. On the waypoint details page, select **Route**.
2. On the route details page, select **Navigate**.
3. Select **Hike** or **Drive**.

The Map Page opens in navigation mode.

To delete a waypoint

From the waypoint details page, go to **MENU > Delete Waypoint**. When you see the confirmation message, select **Yes**.

To delete waypoints by symbol

1. From the Waypoints Page, go to **MENU > Delete by Symbol**.
2. On the Waypoint Symbols page, select the check box for each symbol you want to delete. Only symbols used in the current file are listed.

3. Select **Delete**. When you see the confirmation message, select **Yes**.
The waypoints with that symbol in the current file are deleted from the file.

Averaging a Waypoint

When you average a waypoint, the PN-Series GPS records a series of GPS readings for the waypoint's location and averages them to increase the positional accuracy of the waypoint. As you average the waypoint, the GPS status, coordinates, elevation, number of readings at the location, and estimated accuracy display. Multiple readings improve the positional accuracy of the waypoint. The estimated accuracy number decreases as the accuracy improves.

To average a waypoint

From the waypoint details page, go to **MENU > Average Waypoint**. When the device has recorded the number of readings you want, press **ENTER**.

Tip Average your location during multiple visits, at different times of the day to get the best results. Always place the device in the same location to average the waypoint.

Projecting a Waypoint

You can project a waypoint at a new location by providing the bearing and distance from an existing waypoint.

To project a waypoint

1. From the waypoint details page, go to **MENU > Project Waypoint**.
2. Enter the information for the projected waypoint in the **Bearing** and **Distance** fields.
3. Select **Move** to move the existing waypoint to **Create New** to mark a new waypoint at the projected location. Then, press **ENTER**.

Visit the DeLorme Wiki at wiki.delorme.com for more information. The latest version of the User Manual is always available for download.

The Geocaches Page

Geocaching is a treasure hunting game where you use a GPS device to search for geocaches—containers that include a log for you to record your visit. Some geocaches have trinkets you can take—just follow the “take one, leave one” rule. To find out more about geocaching, visit Geocaching.com.

On a PN-Series GPS, a geocache is a special type of waypoint used for geocaching. The Geocaches Page lets you view a list of the active geocaches on your device. Geocaches are active on your device when you open a waypoint file that contains geocaches.

You can also use the **Find** button to search for geocaches; for more information see *The Find Page* section starting on page 29.

To open the Geocaches Page, from any page go to **MENU > Geocaches**. If you have added the Geocaches Page to the **PAGE** button order, it is no longer available on menus. Press the **PAGE** button until it appears.



Geocaches page

Managing Geocache Files

Geocaches are managed using waypoint GPX files on an SD card in your device; each file can contain up to 1,000 geocaches and child waypoints. For more information about GPX files, see *File Management* on page 66.

Geocache List

The Geocaches Page displays a list of active waypoints from the GPX file open on your device. The file name and the number of geocaches and any child waypoints in the file appear at the top of the page. When you highlight

a waypoint in the list, the Bearing and Distance info fields display measurements as follows:

- ▶ From the GPS position when the device has a GPS fix.
- ▶ From the cursor location if you are manually panning the map.
- ▶ From the map center if the GPS receiver is turned off.

Sorting the List

The Geocaches Page is automatically sorted into two separate lists—logged and not logged—based on the geocaching symbol type. You can sort the list you are viewing by the distance from your GPS or map location or sort alphabetically by name.

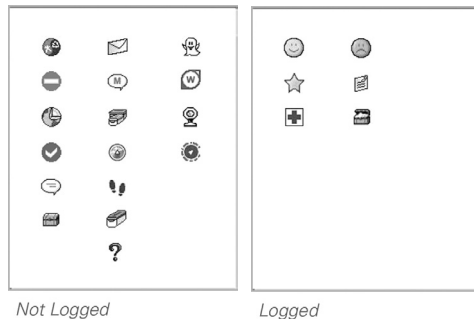
The device is set by default to sort by name. To change the sorting method, press **MENU**, highlight the sorting method to use and press **ENTER**. If the file has a large number of geocaches, press **ENTER** to interrupt the Sorting Geocaches process and see a partial list.

Symbols

Geocache symbols come from Geocaching.com and are also available in the PN-Series symbol set in your DeLorme mapping application. For a printable list of symbols on the device, see the DeLorme Wiki (wiki.delorme.com).

When you change a geocache symbol, be aware that it may affect how the geocache is displayed on the device.

For example, if you choose a waypoint symbol, the geocache will move to the Waypoints Page and if you change a symbol from a not logged to a logged symbol type, it will move from the Show Not Logged to the Show Logged list.



File Menu

Use the File menu to manage geocache (waypoint) GPX files on an SD card in the device, as well as geocaches you create on the device. To open the File menu, from the Geocaches Page, go to **MENU > File**. The following options are available:

- ▶ **New**—Create a new GPX file and name it. When you turn off the device, the file will be automatically saved.
- ▶ **Open**—View a list of GPX files on the SD card. Select

the file you want to open and press **ENTER** to view the waypoints on the device.

- ▶ **Save As**—Save the open file as a new file and name it. If you have made any changes to the open file, the changes are saved in the new file—the original file does not retain the changes.
- ▶ **Close**—Close the open GPX file.

How to Add Geocaches to the Device

Use one of the following methods to send geocaches to your device.

- ▶ **DeLorme Topo North America™ 9.0**—Use Earthmate® GPS Sync to sync GPX files, including Pocket Queries from Geocaching.com, and then send them to your device. See the program's Help for more information.
- ▶ **DeLorme Send to GPS Plugin**—This free plugin is available to members of Geocaching.com. Once you find a geocache on the Geocaching.com website, send it directly to your device. See *To use the Send to GPS plugin*.
- ▶ **DeLorme Cache Register™**—Cache Register is a desktop computer utility you can use to send pocket queries (groups of geocaches) from Geocaching.com to a PN-Series GPS. You must be a premium member

of Geocaching.com to create pocket queries. To purchase Cache Register, visit our website (delorme.com). See the program's Help for more information on how to use Cache Register.

Note Cache Register is compatible with Apple® computers.

To use the Send to GPS plugin

With the DeLorme Send to GPS plugin, you can send one geocache at a time to a PN-Series GPS. You must be logged in to Geocaching.com to use this feature. Please note that geocache descriptions and hints are available only for premium members of Geocaching.com.

1. Connect your device to your computer. The device should be set to the default Connect to Computer setting—Use GPS.
2. On Geocaching.com, use the *Seek a Cache* feature to find the geocaches in your area of interest.
3. From the results list, click the **Send to GPS** icon or view the geocache's details and click the **Send to GPS** button.
4. The DeLorme Send to GPS plugin opens and transfers the geocache to your device.
5. Repeat step 3 to send each geocache to your device.

Managing Geocaches

To view geocache details

Use the geocache details page to view information about a geocache, when available.

From the Geocaches Page, select a geocache and press **ENTER**. The geocache details page opens.

The screenshot shows the 'Geocache details' page for a geocache named 'Bears In The Bushes'. The page is divided into several sections: 'Symbol/Label' with a tree icon, 'Coordinates: Lat/Lon' showing 'N 43°48.4170' and 'W070°09.9340', 'D/T' with star ratings for Distance (D) and Terrain (T), 'Size' with a progress bar and the word 'Regular', 'Last Logged' with a note icon and the text 'Write note 2009-07-01', and a bottom section with 'Delete', 'View', and 'Route' buttons.

Geocache details

Tip The **Last Logged** field on the geocache details page displays the first two lines of the most recent log entry.

To edit geocache details

You can edit the symbol, label, and coordinates. You can edit comment details for geocaches you have created on the device. Changes you make to the geocache details on your device do not update information on the Geocaching.com website.

To edit a field, select it and press **ENTER** and use the available option (drop-down list, arrow keypad, or keyboard) to make changes. When you are finished editing, press **ENTER**.

To view comment details

Comment details give you detailed information about the geocache, such as the cache ID, the size, the difficulty and terrain, as well as the full description, the hint, and the full log. Note .loc files do not include comments.

From the geocache details page, go to **MENU > View Comment Details**.

Note When navigating to a waypoint or geocache, the View Comment Details option is also available from the Map, Compass, Trip Info, and Directions pages. The comment for the most recently viewed point is displayed.

The screenshot shows the 'Comments' page for the geocache 'Bears In The Bushes'. It displays the following information: 'Owner: Team DeLorme', 'Cache ID: GC17MZ7', 'Traditional Cache', 'SIZE: Regular', 'D/T' with star ratings, 'INVENTORY: 2', 'SHORT DESC: This traditional cache is intended for children and families.', and 'LONG DESC: There have'. The page has a scroll bar on the right.

Comments

Tip Press the **Out** button to move through the comment one page at a time. Press the **Up** arrow on the arrow keypad to move to the end of the comment.

To view the geocache hint

To quickly view the geocache hint, from the geocache details page go to **MENU > View Hint**.

To view/center a geocache on the map

From the geocache details page, select **View**; press **QUIT** to return to the geocache details page.

To move the geocache to the GPS location

From the geocache details page, go to **MENU >**

Move to GPS Location. When you see the confirmation message, select **Yes**. The geocache's location information will update to the current GPS location.

To delete a geocache

From the geocache details page, go to **MENU >**

Delete Geocache. When you see the confirmation message, select **Yes**.

To delete geocaches by symbol

From the Geocaches Page, go to **MENU >**

Delete by Symbol.

1. On the Geocaches Symbol page, select the check box for each symbol you want to delete. Only symbols used in the current file are listed.

2. Select **Delete**. When you see the confirmation message, select **Yes**.

The geocaches with that symbol in the current file are deleted from the file.

Averaging a Geocache

When you average a geocache, the PN-Series GPS records a series of GPS readings for the geocache's location and averages them to increase the positional accuracy of the geocache. As you average the geocache, the GPS status, coordinates, elevation, number of readings at the location, and estimated accuracy display. Multiple readings improve the positional accuracy of the geocache. The estimated accuracy number decreases as the accuracy improves.

To average a geocache

From the geocache details page, go to **MENU > Average Geocache**. When the device has recorded the number of readings you want, press **ENTER**.

Tip Average your location during multiple visits, at different times of the day to get the best results. Always place the device in the same location to average the geocache.

Projecting a Geocache

You can project a geocache at a new location by providing the bearing and distance from an existing geocache.

To project a geocache

1. From the geocache details page, go to **MENU > Project Geocache**.
2. Enter the information for projected geocache in the **Bearing** and **Distance** fields.
3. Select **Move** to move the existing geocache or **Create New** to mark a new geocache at the projected location. Then, press **ENTER**.

Geocaching

Out in the field, pick a geocache to start with and then use the PN-Series GPS geocaching features to navigate to, log, and write field notes for one or a series of geocaches.

To navigate to a geocache

Navigate from your current location to the first geocache on your list. Once you log your find, the device finds the next geocache for you. Routes to geocaches are not saved on the device.

1. On the geocache details page for the first geocache on your Not Logged list, select **Route**.
2. Select **Hike** or **Drive**.
The route calculates and the Map Page displays in navigation mode.
3. Navigate to the geocache.
4. When you are ready to log the geocache, go to **MENU > Log Your Geocache Find**.

5. Write a field note or leave the default information and select **Done**.
6. On the Next Geocache screen, select an option:
 - » **Find Next Closest**—View the details page for the next geocache and go back to step 1.
 - » **View List**—View the Not Logged list and pick your own geocache.
 - » **Stop Geocaching**—Stop navigating and geocaching.

To log a geocache

When navigating, you can log a geocache from the Map, Compass, Trip Info, or Directions pages. You can also log a geocache at any time from its details page.

1. Go to **MENU > Log Your Geocache Find**.
2. Select the log option: **Found It!**, **Didn't Find It**, **Write Note**, and **Needs Maintenance**. Any of these actions changes the geocache symbol to the one on the button you choose and moves the geocache to the Show Logged list.
3. Write a field note or leave the default information and select **Done**.

Symbol/Label
Bears In The Bushes

Log Geocache

Found It!

Didn't Find It

Write Note

Maintenance

Note: Use MENU to switch log view

Log Your Geocache option

To write a field note

When you log a geocache with a cache id, you can write a field note that you can later upload to Geocaching.com.

1. Log a geocache.
2. On the Field Notes page, you can use one or all of the fields to create a field note:
 - » **Quick Notes**—This drop-down list includes a list of acronyms used by geocachers for logging caches. See the Quick Notes box for a list of what the acronyms mean. Select the note from the drop-down list and then select **Add**. You can add multiple quick notes.
 - » **Your Notes**—To add your own notes, highlight the comment area and press **ENTER**.

- » **Signature**—At the bottom of the screen, you can enter a 2-line signature. Highlight **Enter signature text** and press **ENTER** to open the keyboard. Ensure the **Include Signature** check box is selected to automatically add your signature to all field notes that you create.

3. Select **Done**.

Field Notes

Bears In The Bus...

Quick Notes
 TFTC **Add**

Nice spot!
TFTC

☒ **Include Signature**
Team DeLorme

Done

Field Notes page

Quick Notes

TFTC- Thanks for the Cache
 TFTH- Thanks for the Hide
 TNLN- Took Nothing Left
 Nothing
 SL- Signed Log
 TTB- Took Travel Bug
 LTB- Left Travel Bug
 FTF- First to Find

Quick Notes

To view field notes

From the Geocaches Page, go to **MENU > View Field Notes** to see a list of the caches for which you added a field note.

To upload field notes

You can upload field notes from your device to Geocaching.com with the Earthmate GPS Sync dialog

in Topo North America, Cache Register, or the DeLorme Field Notes page on Geocaching.com. See the Help for each application for complete instructions.

Apple® computer users *When your device is connected to your computer, manually eject the EM_USERMAPS drive after use; if you do not, the drive is forcefully ejected and could harm both the device and disrupt other USB drives connected to the computer.*

Visit the DeLorme Wiki at wiki.delorme.com for more information. The latest version of the User Manual is always available for download.

The Routes Page

The Routes Page displays a list of routes on the PN-Series GPS—routes you have created on the device and routes you have sent to the device using a DeLorme mapping application. Using DeLorme Topo North America™ or XMap® to create pre-planned routes in advance on the desktop for transfer to the device lets you make sure to take exactly the road route you want and is also the best way to create long routes.

To open the Routes Page, from any page go to **MENU > Routes**. If you have added the Routes Page to the **PAGE** button order, it is no longer available on menus. Press the **PAGE** button until it appears.



Routes Page



Edit Route Settings

In the routes list, hiking (direct) routes have a straight yellow line icon and driving routes have a curved blue line icon. The active route name appears in bold text.

Edit Route Settings

Use route settings to determine the route calculation method, back on track options, and hiking route options.

From the Routes Page, go to **MENU >**

Edit Route Settings.

Select the route setting options.

- ▶ **Calculation Method**—Determines the option (Hike or Drive) that is enabled when you create a route and is the default method when viewing a route that has not been calculated. Select **Hiking** or **Driving**.
- ▶ **Back on Track (Hiking) / Back on Track (Driving)**—Sets the option for informing you that you are off course and showing the way back to the route. When the route recalculates, the route highlight is cleared from the start to the current GPS location. The original route is not modified; you can select it again to restore it. For either Hiking or Driving, select **Off** if you do not want to use the Back on Track feature.

- » **Hiking**—Select **Automatic** to continuously recalculate from the current GPS location to the next stop in the route. Select **Prompt** to alert you when you are off track; you can then choose to recalculate or ignore.

Note For trail routes sent to your device from Topo North America or XMap, select **Off** so that the trail route does not recalculate—if it recalculates, the shape of the route is lost.

- » **Driving**—Select **Automatic** to recalculate from the threshold specified in the Back on Track Threshold option. Select **Prompt** to alert you when you are off track; you can then choose to recalculate or ignore. Select **Off** if you do not want to use Back on Track.

- **Back on Track Threshold**—For driving routes, sets the distance threshold for initiating a back on track calculation. Select a distance from the drop-down list. A large value prevents excessive prompts, while a small value recalculates as soon as you are off the route.

- **Compass Navigation Arrow**—In the event you go off your route when navigating a hiking route, you can choose to have the bearing arrow point to the next waypoint in your route (best when trying to get to the next waypoint by the shortest distance) or point back to the route (best if you want to follow a specific path).

Select **Direct to Next Waypoint** or **Back on Course** from the drop-down list.

- **Hiking Route Calc Speed**—The walking speed that the device uses to calculate a walking route. Press **ENTER** and use the arrow keypad to make changes. When you are finished editing, press **ENTER**.

To restore the default settings for all options, select **Restore Defaults**.

Create a Route

From the Routes Page, you can create a route to one point or to multiple points from your current GPS position or another location. At any time when viewing a geocache, waypoint, or a Find search result, you can create a route to it using the **Route** option on its details page.

To create a route from the current position

Current Position is the default start point for a route; this is the current GPS location or the map cursor location when panning the map or viewing another location. Once you create a route, you can navigate with it or view it on the map.

1. On the Routes Page, select **New**.
2. To use the default route name—the last point you add to your route—go to step 3.

OR

To add a name for your route, highlight the **Route Name** field, press **ENTER** and use the keyboard to make changes. When you are finished editing, press **ENTER**. The route name will not change when you add points.

3. Ensure **Add Point** is highlighted and press **ENTER**.
4. Select the method for adding the point.
 - » **Use Find**—Opens the Find Page. Search for the point you want to add; from the search result details page, select **Add**.
 - » **Use Map**—Opens the Map Page. Pan the map to the location you want to add and press **ENTER**. You can add multiple points while panning. Press **QUIT**.
5. Repeat step 4 for each point in the route.
6. Select **Navigate** or **View**.

Note To save the route without navigating or viewing it, press **QUIT**. The route is saved using the type selected in the **Calculation Method** drop-down list in the route settings.

7. Select the route method; **Hike** or **Drive**. The route calculates and displays on the map. If you selected **Navigate**, the device is in navigation mode. If you selected **View**:
 - » To hide the route, go to **MENU > Hide Route** press **QUIT** to return to the route details page, and then select **Hide**.

- » To begin navigating, press **QUIT** to return to the route details page and select **Navigate**.

Tip When you create a direct route from your current GPS location to a single point and navigate to it, the route is automatically deleted once you stop navigating.

To move, remove, or view details for route points

As you add points to a route, you can view its details, change its order in the route, or remove it from the route.

Highlight the point and press **ENTER**; then select an option.

- **Details**—The details page for the point displays.
 - » Select **Mark** to create a waypoint for the point; you can edit the information. For more information see *To edit waypoint details* on page 36.
 - » Select **View** to view it on the map (press **QUIT** to return to the route point details page).
- **Move**—Enables the point in the list; use the arrow keypad to move the point up or down in the list order, and then press **ENTER**.
- **Remove**—Removes the point from the list. For example, you can remove the Current Position field if you don't want to include it in your route.

Manage Routes

To view route details

On the Routes Page, select a route to open its details page. If the route name is in bold text, it is displaying on the map.

To navigate with or view a saved route on the map

1. From the route details page, select **Navigate** or **View**.
2. If the route has never been calculated, select **Hike** or **Drive**. The route displays on the map. If you selected **Navigate**, the device is in navigation mode. If you selected **View**:
 - » To hide the route, go to **MENU > Hide Route** or press **QUIT** to return to the route details page, and then select **Hide**.
 - » To begin navigating, press **QUIT** to return to the route details page and select **Navigate**.

To reverse a route

From the route details page, go to **MENU > Reverse Route**. Then, on the route details page select **Navigate** or **View**.

To simulate navigation

When you simulate navigation, track recording is turned off.

From the route details page, go to **MENU > Simulate Navigation**. When you see the Simulate Navigation message, select **OK**. The Map Page opens and simulates the route. You can access the following settings from any default page except the Satellites Page.

- To change the simulation speed, go to **MENU > Simulation Speed** and then select a speed.
- To stop simulation, go to **MENU > Stop Simulation**.

To delete a route

From the route details page, go to **MENU > Delete Route**. When you see the confirmation message, select **Yes**.

To delete all routes

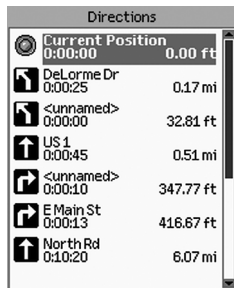
This deletes all routes; to delete a specific route, view the route details page.

1. From the Routes Page, go to **MENU > Delete All Routes**.
2. On the Manage Memory screen, the **Delete All Routes** check box and **Delete Now** button are selected. Press **ENTER**.
3. When you see the confirmation message, select **Yes**.

Directions Page

When you are navigating a route, the Directions page is available in the default **PAGE** button sequence (after the Trip Info Page). You can also view the Directions page for

the active route from Routes Page by selecting **Directions**.



Directions

Press **MENU** from the Directions Page to access Route Options and geocaching options (see the next section).

You can also change the distance that is displayed for each step in the directions. The option you are using is not displayed; to change to the available option, select it.

- ▶ **Show Distance to Finish**—The distance from the step to the end of the route.
- ▶ **Show Distance to Next Turn**—The distance from one step to the next step.

Other Menu Options

When navigating, additional options are available on the Routes Page menu.

View Comment Details

When navigating, go to **MENU > View Comment Details** to quickly view the comment for the waypoint or geocache you are navigating to. The comment for the most recently viewed point is displayed.

Log Your Geocache Find

When navigating to a geocache, use this option to quickly log geocaches, write field notes, and pick a route to your next cache. For more information about these features, see *The Geocaches Page* section starting on page 38.

Route Options

When navigating, use Route Options to stop navigating, get back on track, or switch the route type. For more information about route options, see *Edit Route Settings* on page 46.

From the Map Page, go to **MENU > Route Options** and select **Stop Navigating**, **Back on Track**, or **Switch to Hiking/Driving** (the option you can switch to displays).

Visit the DeLorme Wiki at wiki.delorme.com for more information. The latest version of the User Manual is always available for download.

The Tracks Page

A track is a recording of points along the path you travel—use it to keep a log of your travels. From the Tracks Page, you can turn track recording on and off, set the method for recording track points, and manage track files on the SD card.

To open the Tracks Page, from any page go to **MENU > Tracks**. If you have added the Tracks Page to the **PAGE** button order, it is no longer available on menus. Press the **PAGE** button until it appears.

Record:	<input checked="" type="checkbox"/> On	<input type="checkbox"/> Off
<div><div></div>33%</div>		
Save	Clear	Follow
Open Track		
2010-Mar-19, 101459A		
19-Mar-10, 10:14 AM		
44.95 ft, 00:03:27		
Details		

Tracks page

XMap 7 users See the supplemental online help on the DeLorme Wiki (pn40.wiki.delorme.com/xmap) for information about using XMap with the Tracks Page.

Viewing a Track on the Map

On the Map Page, you can view the active track and one opened track file from the SD card at the same time.

The opened track file is the color set in the track's details (see *To view details for the open track* on page 53).

The appearance of the active track on the map is based on your GPS status.

- ▶ **3-D fix**—Green line
- ▶ **2-D fix**—Yellow line
- ▶ **No fix or GPS receiver is turned off**—No points are placed on the map. Points resume once a 2-D or 3-D fix is established.

Edit Track Settings

To customize how tracks are recorded, from the Tracks Page, go to **MENU > Edit Track Settings**.



Edit Track Settings

- ▶ **Record points by**—The method for logging points; select **Time** or **Distance** from the drop-down list. A short time interval gives you the most detailed results but quickly adds many points; logging by distance gives you longer recording time.
- ▶ **Recording interval**—The amount of time or distance between each point recording. To edit the number, highlight it and press **ENTER**. Use the left/right arrows on the arrow keypad to select a number and use the up/down arrows to change it.
- ▶ **When track is full**—Determines what the device does when the maximum number of points (10,000 per track) is reached.
 - » **Overwrite Points**—The oldest points on the track are replaced with new points.

- » **Stop Recording**—The device stops recording.
- » **Start Recording a New Track**—The device saves the track and starts recording a new track.
- ▶ **Prompt to Reset Trip Info**—When this check box is selected, the Reset Trip Info page appears when you manually save or clear an active track. This synchronizes the track with the Trip Info.

To restore the default settings for all options, select **Restore Defaults**.

Managing Active Tracks

To record the active track

To turn track recording on, select **On**. To turn it off again, select **Off**. The selected button looks indented and the text is white (the text on the selected button is black when using the Midnight display option).

To clear the active track

To clear the active track and start recording a new track, select **Clear**. If the Prompt to Reset Trip Info check box is selected in the track settings, edit the check boxes and select **Reset Now**, or press **QUIT** to exit the page. If track recording is turned on, a new track will start recording.

To follow the active track

To follow the active track back to your starting point, select **Follow**. The device creates a route and the Map

Page opens in navigation mode. The active track continues recording as you follow the track back to the start.

To save the active track

1. Select **Save** to save the active track as a file on the SD card and clear the active track memory.
2. Name and save the file.
3. On the track details page, edit the track **Track** (name), **Color**, and **Comments** fields as needed.
To edit a field, highlight it and press **ENTER**. Then, use the available option (drop-down list, arrow keypad, or keyboard) to make changes. When you are finished editing, press **ENTER**.
4. If the Prompt to Reset Trip Info check box is selected in the track settings, the Reset Trip Info page opens. Edit the check boxes and select **Reset Now**, or press **QUIT** to exit the page.

Managing Track Files

Saved tracks are managed using GPX files on the SD card in your device; the number of track files you can save depends on the memory available on the SD card.

For more information about GPX files, see *File Management* on page 66.

File Menu

Use the File menu to manage track GPX files stored on the SD card in the device.

To open the File menu, from the Tracks Page, go to **MENU > File**. The following options are available:

- ▶ **Open**—Open a list of GPX files on the SD card. Select the file you want to open and press **ENTER** to view it on the device.
- ▶ **Close**—Close the open GPX file.

To view details for the open track

Open a saved track file using the File menu. Then, on the Tracks Page, select **Details**. The track details page opens.

Track Geocache Trip	
Color 	Time/Date 11:36 AM 11-Apr-09
Distance 2.32 mi	Trip Time 01:39:07
Comments 	
View Follow Delete	

Track Details

To edit details for the open track

On the track details page, you can customize the track name, color, and comments.

To edit a field, use the arrow keypad to highlight it and press **ENTER**. Use the available option (drop-down list, arrow keypad, or keyboard) to make changes.

To view the open track on the map

The **View/Hide** button shows the available action.

To view the track on the map, select **View** on the track details page. To hide a track on the map if it is showing, select **Hide** on the track details page.

To follow the open track

To follow a saved track, open the track file and on the track details page, select **Follow**. The device creates a route and the Map Page opens in navigation mode.

To play back the open track

When you play back a saved track, the GPS receiver and track recording are turned off.

From the track details page, go to **MENU > Start Track Playback**. When you see the Track Playback message, select **OK**. The Map Page opens and simulates following the track. You can access the following settings from several pages.

- ▶ To change the track playback speed, go to **MENU > Playback Speed** and then select a speed.
- ▶ To stop track playback, go to **MENU > Stop Track Playback**.

Calculating the Area of a Track

You can use a track to calculate an area by returning to your starting position. If you do not return to your starting position, a straight line is used to close the gap.

- ▶ For the active track, go to **MENU > Show Active Track Area**.
- ▶ For a track file, view the track details, and then go to **MENU > Show Track Area**.

Note Do not cross your path as you record the track or it will not calculate correctly.

Visit the DeLorme Wiki at wiki.delorme.com for more information. The latest version of the User Manual is always available for download.

The Sun/Moon Page

Use the Sun/Moon Page to view the sunrise/sunset and moonrise/moonset information and the moon phase information for a specific time, date, and location.

To open the Sun/Moon Page, from any page go to **MENU > Sun/Moon**. If you have added the Sun/Moon Page to the **PAGE** button order, it is no longer available on menus. Press the **PAGE** button until it appears.



Sun/Moon Page

The Sun/Moon Page shows information for the current map center at the time and date indicated. For example, if you are in Maine and you pan the map to California, you see the position of the sun and moon in California for the time and date displayed.

Sun/Moon graphic

The sun/moon graphic is in the center of the page. The graphic on the left shows the current position of the sun/moon in relation to a compass. The gray line represents a shadow to illustrate the path of the sun overhead.

When the sun is directly overhead in the summer months, the shadow is very short. As winter approaches and the sun travels lower through the sky the shadow indicator becomes longer. The graphic on the left shows where the sun/moon is currently as it moves overhead from east to west.

Rise/Set

The Rise/Set fields display the time that both the sun (left) and moon (right) will rise and set. The rise time is on the top. If the sun or moon does not rise or set on a specific date, dashes (-) display in the applicable info fields.

Moon Phase

The Phase field displays the name of the current moon phase, the percentage completed if it's waxing or waning, and a graphic representation of the phase.

To change the location

If you want to see sun/moon information for a location other than your current GPS location, pan the map or change the map center (for example, view a waypoint or a search result on the map). Then, view the Sun/Moon Page to see the information for the new location.

To change the time and date

You can change the time and date to see different sun/moon information.

1. Highlight the field you want to edit (**Time** or **Date**).
2. Press **ENTER** and use the arrow keypad to make changes. When you are finished editing, press **ENTER**.

To reset the time and date

If you change the time and date on the Sun/Moon Page, you can reset it to the device's time and date.

From the Sun/Moon Page, go to **MENU >**

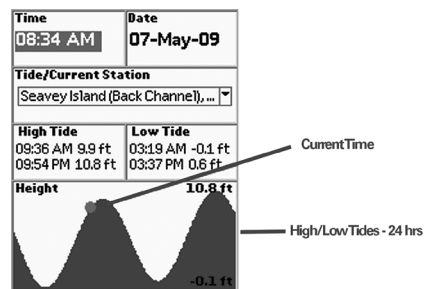
Reset Time/Date.

Visit the DeLorme Wiki at wiki.delorme.com for more information. The latest version of the User Manual is always available for download.

The Tide Page

Use the Tide Page to view tide (for oceans) or current (for tidal rivers) information for a specific time, date, tide station, and location.

To open the Tide Page, from any page go to **MENU > Tide**. If you have added the Tide Page to the **PAGE** button order, it is no longer available on menus. Press the **PAGE** button until it appears.



Tide Page

The fields in the middle of the screen (above the graph) display the high/low tide (ocean) or maximum ebb/minimum flood current (tidal river) based on the current time, date, and location.

The graph at the bottom of the screen shows the tide/current information for a 24-hour period. The red dot in the graph represents the Time field.

To change the location

To view information for a location other than your current GPS location, change the map center (for example, by panning the map or viewing a waypoint). Then, view the Tide Page.

The information for the closest tide station displays and the ten tide stations closest to the map location are available in the Tide/Current Station drop-down list.

To change the tide station

Select the tide station from the **Tide/Current Station** drop-down list; the ten stations closest to the current map center are listed.

To change the time and date

You can change the time and date to see tide or current information. Changing the time and date on the Tide Page does not change the time and date on the device.

1. Highlight the field you want to edit (**Time** or **Date**).

2. Press **ENTER** and use the arrow keypad to make changes. When you are finished editing, press **ENTER**.

To reset the time and date

To reset the time and date to the device's time and date, from the Tide Page, go to **MENU > Reset Time/Date**.

Visit the DeLorme Wiki at wiki.delorme.com for more information. The latest version of the User Manual is always available for download.

The Hunt/Fish Page

Use the Hunt/Fish page to view a prediction of the hunting and fishing conditions for a specific day and location. The calculations are based on John Alden Knight's Solunar Tables, which use the cycle of the sun and moon to predict activity and feeding schedules.

To open the Hunt/Fish Page, from any page go to **MENU** > **Hunt/Fish**. If you have added the Hunt/Fish Page to the **PAGE** button order, it is no longer available on menus. Press the **PAGE** button until it appears.

Time	Date
06:04 AM	15-May-09
Coordinates: Lat/Lon N 43°48.3481' W 70° 9.8328'	
Prediction Average Day	
Best Times 04:33 AM - 06:33 AM 04:46 PM - 06:46 PM	
Good Times 11:09 AM - 12:09 PM 11:32 PM - 12:32 AM	

Hunt/Fish Page

To change the location

The coordinates shown on the Hunt/Fish Page are for the current map center. To view information for a location

other than your current GPS location, change the map center (for example, by panning the map or viewing a waypoint). Then, view the Hunt/Fish Page to see that location.

To change the date

You can change the date to see a prediction of the hunting and fishing conditions for a specific day.

When you view the Hunt/Fish Page, the **Date** field is highlighted; press **ENTER** and use the arrow keypad to make changes. When you are finished editing, press **ENTER**.

To reset the date

To reset the date to the device's date, from the Hunt/Fish Page, go to **MENU** > **Reset Date**.

Visit the DeLorme Wiki at wiki.delorme.com for more information. The latest version of the User Manual is always available for download.

The Device Setup Page

To open the Device Setup Page, from any page go to **MENU > Device Setup**. If you have added the Device Setup Page to the **PAGE** button sequence, it is no longer available on menus. Press the **PAGE** button until it appears.

Use the Device Setup Page options to modify the default settings on the PN-Series GPS. You can also view and manage internal and SD card memory use and restore the device's default system settings.

System

Use the System options to modify GPS/WAAS settings, select the battery type, enable/disable USB power, and view and manage memory information.

To change system settings

From any page, go to **MENU > Device Setup > System**

Use the drop-down lists to select system settings.

▶ GPS Settings

- » **Normal**—Normal GPS use.
- » **Power Saving**—Turns off backlight after 15 seconds and reduces processor speeds.
- » **Disable GPS**—Turns off GPS satellite tracking. See *To disable GPS* on page 11.

» **Demo Mode**—Enables Demo Mode. See *To view or hide Demo Mode* on page 3.

▶ **Stealth Mode**—Select this check box to set sounds to Mute All and backlight to Always Off.

▶ **WAAS**—Select **Enabled** or **Disabled**. See *GPS and WAAS Status* on page 10.

▶ **Battery Type**—Select **Alkaline**, **Lithium**, **NiMH**, or **Li-ion (Rechargeable)**—use only DeLorme Li-ion batteries. See *Installing the Batteries and SD Card* on page 2.

▶ **USB Power**—Select **Enabled** or **Disabled** to determine if the device can receive power from a computer USB port.

To view memory use

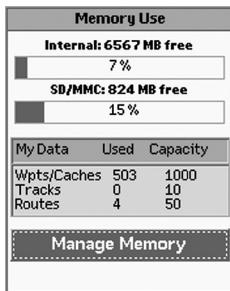
You can view how much space is available on the device's internal memory or an SD card in the device.

From any page, go to **MENU > Device Setup > System > Memory Use**.

You can view:

- ▶ Internal memory use
- ▶ SD card memory use

- ▶ The number of waypoints/geocaches, track, and routes currently open.
- ▶ The device's total capacity.



Memory Use

To restore the default settings

To restore the default settings for all the System options, from any page go to **MENU > Device Setup > System > Restore Defaults**.

Display

Use the Display options to update the device's color scheme and backlight settings.

To modify the color scheme

Go to **MENU > Device Setup > Display > Color Scheme** and select the color scheme from the drop-down list.

- ▶ **Spring** (green)
- ▶ **Summer** (yellow)

- ▶ **Autumn** (orange)
- ▶ **Winter** (blue)
- ▶ **Midnight** (high contrast—black/gray/dark blue; helpful for night use)

To automatically turn on the Midnight option at night, select the **Use Midnight at sunset** check box.

To modify the backlight intensity

You can adjust the brightness of the screen backlight. Decrease the intensity to improve battery life.

From any page, go to **MENU > Device Setup > Display > Backlight Intensity**.

- ▶ To decrease the backlight intensity, move the slider to the left.
- ▶ To increase the intensity, move the slider to the right.

You can also change the backlight setting with the **Power** button; see *Power* on page 5.

To modify the backlight timer

Change how long the backlight remains on before it goes into power saving mode. Decrease the time interval to improve battery life.

From any page, go to **MENU > Device Setup > Display > Backlight Timer** and select the time interval from the drop-down list. There are four specific time options as well as Always On and Always Off options.

To turn on screen rotation

Select the **Enable display rotation check box** to allow the screen to rotate when you view the device upside down. When rotated, the arrow keypad adjusts to match the device's orientation.

To take screenshots

Select the **Screenshots On** check box to take a screen capture when you press and hold the **Power** button and then press **ENTER**. A sound plays to confirm the screenshot. For more information, see *Taking a Screenshot* on page 8.

To restore the default settings

To restore the default settings for all the Display options, from any page go to **MENU > Device Setup > Display > Restore Defaults**.

Connect to Computer

Use the Connect to Computer options to determine what mode the device is in when you connect it to your computer with the USB cable.

From any page, go to **MENU > Device Setup > Connect to Computer**, and then select the option you want to change.

- ▶ **When Connected**—From the drop-down list, select the connection method the device will use when you connect it to your computer.

- » **Use GPS**—Use this option if you are using a compatible DeLorme mapping program or Cache Register™ to sync your device—the program will automatically put the device in the correct transfer mode. This also allows you to use the device as an external GPS; for example, with a laptop.
- » **Open SD Card**—Allows you to view an SD card in the device as a drive for manual file management.
- » **Open Internal Drive**—Allows you to view the device's internal memory as a drive for manual file management.
- ▶ **Use XMap 7 Mode**—Allows you to use the PN-Series GPS with XMap. For information about file management with XMap, visit the DeLorme Wiki (pn40.wiki.delorme.com/xmap).

To restore the default settings

To restore the default settings for Connect to Computer options, from any page go to **MENU > Device Setup > Connect to Computer > Restore Defaults**.

Compass and Altimeter

PN-40 only

Use the Compass & Altimeter options on the Device Setup Page to enable/disable the electronic compass, the barometric altimeter, and the auto calibrate altimeter

feature and to calibrate the electronic compass and the barometric altimeter.

For more information about the compass and altimeter, see the *Compass and Altimeter* section starting on page 67.

From any page, go to **MENU > Device Setup > Compass & Altimeter**.

Select the check box to enable the option.

- ▶ **Enable Electronic Compass**—If this is not selected, the device uses the GPS compass.
- ▶ **Enable Barometric Altimeter**—If this is not selected, the device uses the GPS elevation.
- ▶ **Auto Calibrate Altimeter**—Allows the altimeter to automatically calibrate.

To calibrate the compass or altimeter

From any page, go to **MENU > Device Setup > Compass & Altimeter > Calibrate**, select **Calibrate Compass** or **Calibrate Altimeter**, and then follow the on-screen instructions.

To restore the default settings

To restore the default settings for Compass and Altimeter options, go to **MENU > Device Setup > Compass & Altimeter > Restore Defaults**.

Sound

The Sound options control sounds and volume.

To modify the sound settings

From any page, go to **MENU > Device Setup > Sound**.

Use the drop-down lists to select the various available sound settings or turn the sound off.

- ▶ **Sounds**
- ▶ **Button Press**
- ▶ **Message**
- ▶ **Power**
- ▶ **Turn Alert**

To modify the volume of all sounds

You can adjust the volume of all sounds.

From any page, go to **MENU > Device Setup > Sounds > Volume**. To adjust the volume, use the arrow keypad to move the slider right or left.

To restore the default settings

To restore the default settings for Sound options, go to **MENU > Device Setup > Sound > Restore Defaults**.

Time

Use the Time options to modify the device's time format, time zone, and Daylight Saving Time preferences.

To modify the time settings

From any page, go to **MENU > Device Setup > Time**.

Use the drop-down lists to select the time settings.

- ▶ **Time Format**—Select **Local 12 hr** or **Local 24 hr**.
- ▶ **Zone**—Select your actual time zone or select **Automatic** to allow the device to update the time based on your GPS location.

To enable the Daylight Saving option, select the **Daylight Saving** check box.

To restore the default settings

To restore the default settings, go to **MENU > Device Setup > Time > Restore Defaults**.

Units

Use the Units option to set the various units of measure used on the device.

To modify the units settings

From any page, go to **MENU > Device Setup > Units**.

Use the drop-down lists to select the various unit settings.

- ▶ **Coordinates: Primary**—Select Degrees; Degrees, Minutes; Deg, Min, Sec; UTM/UPS; or USNG/MGRS.
- ▶ **Datum: Primary**—Various. The default datum is WGS84.

- ▶ **Coordinates: Secondary**—Select UTM/UPS; Degrees; Degrees, Minutes; Deg, Min, Sec; or USNG/MGRS.

- ▶ **Datum: Secondary**—Various

- ▶ **Measures**—Select Statute Miles, Kilometers, Nautical Miles/Feet, or Nautical Miles/Meters.

- ▶ **Pressure**—*PN-40 only*. Select Inches of Mercury, Millibars, or Pascals.

- ▶ **Bearing**—Select True or Magnetic.

Note The Coordinates: Primary setting controls what the device displays on the map when the cursor moves. The Coordinates: Secondary field lets you pick a different setting to use in an info field.

To restore the default settings

To restore the default settings, go to **MENU > Device Setup > Units > Restore Defaults**.

Page Order

You can add or remove pages from the **PAGE** button order (you cannot remove the Map Page). When you add a page to the **PAGE** button order, it no longer appears in the menu list—you must press the **PAGE** button until that page displays. You can also change the order in which pages are displayed.

To modify the **PAGE** button order, from any page, go to

MENU > Device Setup > Page Order.

- ▶ To add a page, select the check box next to it.
- ▶ To remove a page, clear the check box next to it.
- ▶ To change the page order, highlight the item you want to move, then use the arrows on the right side of the screen to move the item up or down in the list.

To restore the default settings

To restore the default settings for Page Order options, go to **MENU > Device Setup > Page Order > Restore Defaults**.

Owner Information

Use the Owner Information screen to enter text that identifies your device.

To enter owner information, from any page, go to **MENU > Device Setup > Owner Information** and edit the text area.

To display the information when you turn on your device, select the **Display Info at Startup** check box. The Owner Info screen displays after the Welcome screen.

About this Device

To view the serial number for downloading maps and the build/version number for the device's firmware, from any page go to **MENU > Device Setup > About this Device**.

To view license information, highlight **License** and press **ENTER**.

Restore Setup Defaults

To restore all of the settings in the Device Setup options at the same time, go to **MENU > Device Setup > Restore Setup Defaults**.

Reset Factory Defaults

To reset all the settings on your device to the "out-of-the-box" status and delete all tracks, routes, waypoints, etc., go to **MENU > Device Setup > Reset to Factory Defaults**. Maps you have added to the device will not be deleted.

Visit the DeLorme Wiki at wiki.delorme.com for more information. The latest version of the User Manual is always available for download.

Additional Information

File Management

Waypoints (including geocaches) and tracks are managed using GPX—or GPS Exchange Format—files. A GPX file stores location, elevation, and time information and is used to transfer data between your PN-Series GPS and your computer. GPX files can be saved to an SD card that you put in the device.

Tip *On the Waypoints, Geocaches, and Tracks pages, press **MENU** and select **File** to view the available file management options. For more information about the options available on each page, see that section of the manual.*

Creating a New GPX File

- ▶ When you save a track, a GPX file is created automatically.
- ▶ When you mark a waypoint or geocache, if a waypoint file is open, the new waypoint is saved to the open file. If a waypoint file is not open, a new file is created.

Syncing GPX Files

- ▶ **Earthmate® GPS Sync**—With DeLorme Topo North America™ 9.0, you can quickly send GPX files from your desktop to an SD card in the PN-Series GPS or

in an SD card reader. When you return from your trip, you can send files back to the desktop to keep all your data in sync.

For more information about Earthmate GPS Sync, see the Help in DeLorme Topo North America 9.0.

- ▶ **DeLorme Cache Register™**—Use Cache Register, a web browser plug-in, to sync Geocaching.com Pocket Query GPX files with your device. For more information, see *The Geocaches Page* section starting on page 38.
- ▶ **Manual Transfer**—You can manually transfer waypoint and track GPX files to an SD card in the device. Go to **Device Setup > Connect to Computer > When Connected > Open SD Card**. Then, connect the PN-Series GPS to your computer with the USB cable and drag and drop GPX files into the appropriate folders. You can also use an SD card with an SD card reader.

Transferring Map Files

With Earthmate GPS Sync in DeLorme Topo North America, you can send map packages between your desktop and the PN-Series GPS's internal memory or to an SD card in the device or in an SD card reader.

Tip Use the SD card reader method to quickly transfer large maps. Send maps your use frequently to the device's internal memory so you always have them when you need them.

Compass and Altimeter

PN-40 only

The PN-40 comes equipped with two sensors; an electronic compass and a barometric altimeter.

- ▶ The electronic compass works when the PN-40 is stationary or moving at less than 1.5 miles per hour. The compass readings calculated from GPS information are accurate only when the device is moving.
- ▶ The barometric altimeter uses the elevation adjusted to mean sea level and barometric pressure to provide more accurate elevation readings than the calculated GPS elevation provides.

Changes in weather patterns and geographic locations can cause errors in sensor readings. Calibrating the sensors ensures that they record and display accurate data on the device and record accurate data in the track file.

The Calibrate option is available from the Satellite Page and the Compass Page, and is under the Compass & Altimeter option on the Device Setup Page.

In addition, from the Device Setup > Compass & Altimeter menu, you can enable or disable the electronic compass, barometric altimeter, and the auto-calibrate barometer options, or restore the default settings.



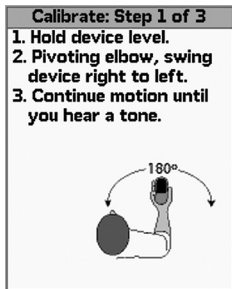
Device Setup > Compass & Altimeter

Compass Calibration

- ▶ Calibrate the electronic compass the first time you use the PN-40.
- ▶ Make sure you are outside and away from magnetic fields, such as those caused by vehicles and power lines, when you calibrate the compass.
- ▶ Calibrate when you change the batteries—batteries, even of the same type, have unique magnetic fields that affect the accuracy of the electronic compass.
- ▶ The device periodically checks the compass accuracy; if it is poor, “Poor Accuracy” appears in the bottom right corner of the Compass Page and a red exclamation point displays in the Heading info field. If the warning does not go away, try calibrating the compass.

To calibrate the compass

1. From the Satellite Page or the Compass Page, go to **MENU > Calibrate > Calibrate Compass**.
OR
From any page, go to **MENU > Device Setup > Compass & Altimeter > Calibrate > Calibrate Compass**.
2. Follow the on-screen instructions to calibrate the compass.



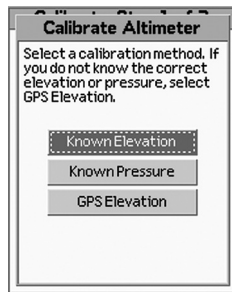
Calibration step 1

Altimeter Calibration

There are three options for calibrating the altimeter. By default, the device is set to auto-calibrate the altimeter using GPS elevation; however, manual calibration using the known elevation or barometric pressure provides greater accuracy.

Auto-calibration uses the average GPS elevation as a basis for the barometric elevation. Adjustments are made to take into account changes over time in the barometric pressure, unrelated to changes in elevation. As the elevation adjusts (typically in 2-3 minutes), "Calibrating" displays in the bottom right corner of the Satellites Page. If you are using the Elevation: Barometer info field on any page, it displays a red exclamation point.

Note that the unit settings used in the Known Elevation and Known Pressure fields are from the units set on your device. To change the units, go to **MENU > Device Setup > Units > Pressure**.



Altimeter calibration

To calibrate the altimeter

1. From the Satellite Page or the Compass Page, go to **MENU > Calibrate > Calibrate Altimeter**.
OR
From any page, go to **MENU > Device Setup > Compass & Altimeter > Calibrate > Calibrate Altimeter**.
2. Select a calibration method.
 - » **Known Elevation**—The actual elevation at your location.
 - » **Known Pressure**—The barometric pressure (adjusted for sea level) for your location.
 - » **GPS Elevation**—The GPS elevation calculated by the device.
3. If you selected Known Elevation or Known Pressure; to edit the field, press **ENTER** and use the arrow keypad to make changes. When you are finished editing, press **ENTER**.
4. Select **Calibrate**, and when you see the successful calibration message, press **ENTER**.

To restore the default settings

To restore the default settings for the options above, from any page go to **MENU > Device Setup > Compass & Altimeter > Restore Defaults**.

Resources

DeLorme

- ▶ DeLorme Wiki (wiki.delorme.com)
- ▶ DeLorme website (delorme.com)
- ▶ DeLorme Community Forums (forum.delorme.com)
- ▶ The DeLorme Weblog (blog.delorme.com)

DeLorme Contact Information

Technical Support

Visit support.delorme.com to access the DeLorme Technical Support Knowledge Base, get answers to frequently asked questions, and for additional support information.

If you cannot find an answer to your problem on the site, please call 207-846-8900 to speak to a Technical Support representative. Please note that DeLorme Technical Support does not provide product training.

Customer Service

For general questions about returns, order status, or problems with shipments, phone 800-511-2459 (Monday through Friday) or send an email to sales@delorme.com.

Direct Sales

To place additional orders, phone 800-561-5105.

Specifications

Physical Specifications

Case: IPX-7 waterproof, impact resistant

Size: 5.25" x 2.43" x 1.5"

Weight: 5.35 oz. (without batteries)

Technical Specifications

Technical Specifications

Hardware

- ▶ Super high-sensitivity 32-channel Cartesio chipset by STMicroelectronics
- ▶ Dual-core processor
- ▶ WAAS-enabled; position accuracy < 3 meters
- ▶ Cold start: < 1 minute; warm start: < 45 seconds; hot start: 5-6 seconds
- ▶ Maximum Velocity: 1000 knots
- ▶ Advanced high-sensitivity tracking algorithms
- ▶ Weak signal tracking down to -159dBm
- ▶ Proprietary Kalman filter for enhanced position accuracy
- ▶ Superior noise rejection for high EMI environments
- ▶ Operating temperature range -20 °C to +75 °C
- ▶ Storage temperature range -45 °C to +100 °C
- ▶ Built-in antenna

- ▶ Sharp high-resolution 2.2" Transflective TFT color display (220 x 176 pixels)
- ▶ Audio: Button presses, directions, and alerts.
- ▶ Map and User Data
- ▶ Detailed U.S. and Canadian base map data with secondary and connector roads along with major highways and roads for the entire world
- ▶ Active memory holds 10,000 track points; 1,000 waypoints; 50 routes

PN-40 Only

- ▶ 3-axis electronic compass with accelerometer
- ▶ Barometric altimeter

Power and Memory

- ▶ Power (without SD card): Full power: 600mW typical (690mW with full backlight); Power save: < 350mW
- ▶ Fast USB 2.0 data transfer
- ▶ 500 MB available internal flash memory (SE model: 7 GB available internal flash memory)
- ▶ Supports SD and SDHC memory cards; up to 32 GB
- ▶ Uses 2 AA batteries or a DeLorme Li-Ion rechargeable battery

FCC Certification

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide

reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ▶ Reorient or relocate the receiving antenna.
- ▶ Increase the separation between the equipment and the receiver.
- ▶ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ▶ Consult the dealer or an experienced radio/TV technician for help.

Cautions and Warnings

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

FCC RF Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

CAUTION Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended. Dispose of used batteries according to the manufacturer's instructions.

WARNING Do not damage the rechargeable Lithium-ion battery. A damaged battery can cause an explosion or fire, and can result in personal injury and/or property damage.

Limited Warranty

DeLorme warrants that your Earthmate PN-Series GPS will be free from defects in materials and workmanship for 1 year from the date of purchase. If your Earthmate PN-Series GPS fails in normal use, DeLorme will, at its sole option, either repair or replace the unit. DeLorme reserves the right to either repair or replace the unit with a new or refurbished unit at its sole discretion. Such repairs or replacements will be made at no charge for labor or materials; however, the customer will be responsible for any shipping charges incurred to send the device to DeLorme. The repaired or replaced product will be warranted for 90 days from the date of return shipment, or for the balance of the original warranty,

whichever is longer. This warranty does not cover failures due to abuse, misuse, accidents, or unauthorized disassembly or modification. Any repairs not performed by DeLorme will void this warranty.

DELORME DISCLAIMS ANY LIABILITY FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOSS OF REVENUES OR PROFITS, EVEN IF DELORME HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

THIS LIMITED WARRANTY CONTAINED HEREIN IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES. ANY AND ALL IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, SHALL LAST FOR 1 YEAR.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of relief such as incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you.

This warranty applies to the original purchaser of the product ONLY.

REMINDER Be sure to retain the sales receipt proving the date of your original purchase. This will be needed

if warranty service is ever required. DeLorme reserves the right to refuse warranty if a receipt is not provided or if the receipt is incomplete/illegible.

Service Plan

Before a product can be returned, you must contact DeLorme Support at 207-846-8900 to determine if a return is necessary and request a Return Material Authorization (RMA) tracking number.

- ▶ The following information must be provided to obtain warranty service:
- ▶ A copy of the sales receipt from the original retailer
- ▶ The serial number of the device
- ▶ The RMA tracking number that you received when you called DeLorme
- ▶ Your return shipping address
- ▶ Your daytime telephone number

If you have contacted DeLorme and have been instructed to send the device in for warranty service, send it to:

DeLorme Earthmate PN-Series
Service Department
2 DeLorme Drive
Yarmouth, ME 04096 USA

You must use a shipping service that provides tracking information. For the latest warranty and repair info, visit delorme.com/gpsrepair.

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Visit the DeLorme Wiki at wiki.delorme.com for more information. The latest version of the User Manual is always available for download.

Info Fields Table

Info fields are used to provide information you need when using the PN-Series GPS. On the Map, Compass, and Trip Info Pages, you can customize the info fields. For more information, see *Info Fields* on page 8.

Notes

- ▶ Info fields may be abbreviated on the screen; for example, Velocity Made Good is abbreviated as VMG.
- ▶ Time is expressed as hours:minutes AM/PM. Go to Device Setup > Time to change the format (12 hour/24 hour) and to turn Daylight Saving Time on or off.
- ▶ Dates are expressed as day-month-year (for example, -1-JUL-10).
- ▶ When information is unavailable, the info field contains dashes.

Info Field	Description
Back on Course	The direction of travel needed to return to the route while continuing in the direction of the destination. Expressed in degrees.
Battery Life	The percentage of battery power that remains.
Bearing	The direction of travel from the current location to the destination (finish or next stop). Expressed in degrees. A green arrow points in the direction of the next waypoint or route point. The arrow is 2-tone bright/dark green when the device is moving—solid green when no movement is detected.
Coordinates: Primary	The coordinates for the current GPS location, cursor position, or map center in the primary format. The default is Lat/Lon. Change the format in Device Setup > Units > Coordinates: Primary.

Info Field	Description
Coordinates: Secondary	The coordinates for the current GPS location, cursor position, or map center in the secondary format. The default is UTM/UPS. Change the format in Device Setup > Units > Coordinates: Secondary.
Course	The direction of travel on a route from the starting location to the destination (finish or next stop). Expressed in degrees.
Device Odometer	The total distance traveled in all trips.
Distance to Finish	The distance from the current location to the route finish.
Distance to Next Stop	The distance from the current location to the next stop in the route.
Distance to Next Turn	The distance from the current location to the next turn in the route.
Elevation: Barometer	The altitude (height) above or below sea level based on the barometric altimeter reading. If the altimeter is calibrating, a red exclamation point displays.
Elevation: GPS	The altitude (height) above or below sea level based on the GPS reading.
Elevation: Maximum	The maximum elevation achieved. Expressed in distance.
Elevation: Minimum	The minimum elevation achieved. Expressed in distance.
ETA at Finish	The estimated time of arrival at the route finish. Expressed as hours:minutes AM/PM, based on the current device time.
ETA at Next Turn	The estimated time of arrival at the next turn in the route. Expressed as hours:minutes AM/PM, based on the current device time.
ETA at Next Stop	The estimated time of arrival at the next stop in the route. Expressed as hours:minutes AM/PM, based on the current device time.
Finish	The Finish label as it appears in the route directions.
GPS Accuracy	The calculated accuracy of the GPS. The actual location is within plus or minus the distance indicated of the location represented by the GPS. Expressed in distance.

Info Field	Description
GPS Status	The current status of your GPS device. No Fix, 2-D, or 3-D. A W below the status indicates a WAAS fix.
Heading	The current direction of travel. Expressed in degrees. PN-40 Only: If electronic compass accuracy is poor, a red exclamation point displays.
Moonrise/Moonset	The time of day at which the moon will rise and set based on the GPS location or the current map center. Expressed as hours:minutes AM/PM.
Next Stop	The label for the next stop as it appears in the route directions.
Next Turn	When navigating, the label for the next turn as it appears in the route directions. Also displays an arrow showing the direction of the turn/route direction information.
Next Turn Arrow	The arrow representing the next turn as it appears in the route directions. No label text displays.
Off Course	The perpendicular distance between the current location and the route. Expressed in distance.
Pressure: Ambient	The surrounding barometric pressure reading. Set the unit type in Device Setup > Units > Pressure.
Pressure: MSL	The surrounding barometric pressure adjusted to the device's elevation reading. Set the unit type in Device Settings > Units > Pressure.
Speed	The current rate of travel for the device. Expressed in distance per unit of time.
Speed: Average	The average speed of the device including stop time. Expressed in distance per unit of time.
Speed: Maximum	The maximum speed achieved. Expressed in distance per unit of time.

Info Field	Description
Speed: Moving Average	The average speed of the device excluding stop time. Expressed in distance per unit of time.
Sunrise/Sunset	The time of day at which the sun will rise and set based on GPS location or the current map center. Expressed as hours:minutes AM/PM.
Time/Date	Time of day and date based on current GPS location; accounts for Daylight Saving Time and time zone adjustments.
Time to Finish	The calculated time to the route finish based on road classifications and default speed settings.
Time to Moonrise/set	The time remaining until the moon rises and sets based on GPS location or current map center.
Time to Next Stop	The calculated time to the next stop in the route based on road classifications and default speed settings.
Time to Next Turn	The calculated time to the next turn in the route based on road classifications and default speed settings.
Time to Sunrise/set	The time remaining until the sun rises and sets based on GPS location or the current map center.
Trip: Odometer	The total distance the GPS device has been moving.
Trip: Time Moving	Total time GPS device has been moving.
Trip: Time Stopped	The total time the GPS has been tracking but not moving.
Trip: Time Total	The total time the GPS has been tracking, both moving and stopped.
Velocity Made Good	The component of the current speed that is in the direction of the route destination. Expressed in distance per unit of time.
Vertical Speed	The current rate of vertical travel for the device. Expressed in distance per unit of time.

Index

A

About this Device.....	65
Altimeter	
Calibrate	68-69
Elevation.....	12
Pressure	64, 67-68
Settings	62-63
Average a waypoint.....	37

B

Back on track.....	46-47
Base map	4, 17
Batteries	
Charge.....	3
Indicator	3, 12
Install.....	2-3
Type.....	2-3, 60
Bearing arrow	24-25, 47
Buttons.....	5-7

C

Compass	
Bearing arrow.....	24-25, 47

Calibrate	63, 67-68
Electronic	25
Settings	64-65
Compass Page	24-26
Contact information	69

D

Data Layering.....	16-18
Data Management	18
Demo Mode	3, 60
Device Setup Page.....	60-65
Directions page	49-50
Disable/turn off GPS	3, 11, 60
Display settings.....	61-62

E

Elevation.....	10, 12, 69
----------------	------------

F

File Management	66
Find Page.....	29-32

G

Geocaches	
Add to device	40
Comments/hints	41-42
Delete	42
Edit	41
Field notes	44-45
Files	38-40
Log find	43
Move	42
Navigate to	43
Project	42-43
Sort list	39
Symbols	39
View on map	42
Geocaches Page	38-45
GPS	
Accuracy	12
Disable/turn off	3, 11, 60
Settings	60
Signal	10
Status	10-11, 60
GPX files	66

H

Hunt/Fish Page	59
Hybrid map	22

I

Imagery	4, 17, 19-20
Info Fields	
Manage	8-9
Table	74-77

K

Keyboard	7-8
----------------	-----

M

Map cursor	6, 14
Map Data	16-18
Map Library	4
Map Page	14-23
Map Setup	16-20
Map transfer	66-67
Measure distance/area	16, 54
Memory use	60-61

N

Navigating	9
Navionics	22-23

O

Orientation, map	19
Owner Information	65

P

Panning the map	15
POIs	
Find.....	29
Map	19-20
Project a waypoint.....	37

R

Reset factory defaults.....	65
Routes	
Create.....	47-48
Delete.....	49
Edit settings	46-47
Options.....	50
Reverse	49
Simulate	49
View	49
Rotate display.....	8, 62
Routes Page.....	46-50

S

Satellites Page.....	10-13
Scale settings.....	20
Screenshots	8, 62
SD card.....	2, 60, 62, 66

Search

Methods.....	29-30
Results	31-32
Sensors	67
Serial number.....	65
Service Plan	72
Set current location	11
Simulate route	49
Sound settings	63
Specifications.....	70
Stealth Mode.....	60
Sun/Moon Page	55-56
Symbols	
Geocache	39
Waypoint.....	34
Syncing data.....	40, 62, 66

T

Tide Page	57-58
Time settings	63-64
Tracks	
Calculate area.....	54
Clear	52
Files.....	53
Follow.....	52, 54
Record.....	52

Save.....	53
Settings	51-52
View on map	51
Tracks Page	51-54
Transfer maps.....	66-67
Trip Info Page	27-28

U

Units settings.....	64
USB setting.....	60

V

View comment details	36, 41
----------------------------	--------

W

WAAS.....	10-11, 60
Warranty.....	71-72
Waypoints	
Average	37
Delete.....	36-37
Edit	36
Mark	34-35
Move	36
Project	37
Sort.....	34
Symbols	34
View on map	36
Waypoints Page	33-37

Z

Zoom in/out.....	5
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Batteries

The Earthmate® PN-40 and PN-30 can be powered by two AA batteries (NiMH, alkaline, or lithium), or a DeLorme-supplied Li-Ion rechargeable battery. You'll find Earthmate PN-Series accessories at www.delorme.com.

Rechargeable Lithium-Ion Battery Pack Caution

Use only an Earthmate PN-Series Battery Type. Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.